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S. HRG. 101-871

SCHOOL-TO-WORK TRANSITION STRATEGIES

HEARING

BEFORE THE

SUBCOMMITTEE ON EDUCATION AND HEALTH

OF THE

JOINT ECONOMIC COMMITTEE
CONGRESS OF THE UNITED STATES

ONE HUNDRED FIRST SESSION

SECOND SESSION

JUNE 14, 1990

Printed for the use of the Joint Economic Committee

U.S. GOVERNMENT PRINTING OFFICE

33-230 WASHINGTON : 1990

For sale by the Superintendent of Documents, Congressional Sales Office
U.S. Government Printing Office, Washington, DC 20402

J841-25

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SCHOOL-TO-WORK TRANSITION STRATEGIES

THURSDAY, JUNE 14, 1990

CONGRESS OF THE UNITED STATES,
SUBCOMMITTEE ON EDUCATION AND HEALTH
OF THE JOINT ECONOMIC COMMITTEE,
Washington, DC.

The subcommittee met, pursuant to notice, at 1:16 p.m., in room 340, Cannon House Office Building, Hon. James H. Scheuer (chairman of the subcommittee) presiding.

Present: Representatives Scheuer and Snowe.

Also present: Steve Baldwin and Scott Borgemenke, professional staff members.

OPENING STATEMENT OF REPRESENTATIVE SCHEUER, CHAIRMAN

Representative SCHEUER. The Subcommittee on Education and Health of the Joint Economic Committee will come to order. We should have a very exciting and provocative and stimulating hearing today. This is an area in which this committee and subcommittee has had an interest for a long time and we keep analyzing this area. We had an excellent set of hearings a couple of years ago that Marc Tucker helped design. His testimony today, it could be a bible for educators and businessmen and Governors from Maine to California. It is a superb piece of work. And it lacks only the addition of those two words to make it a perfect piece of work. It is a terrific, brilliant piece of work.

I'd like to get on with the testimony with no further ado. Our country's performance for non-college-bound youth is an outrage and a disgrace. It should be a matter of national shame. There is no industrialized country in the world that so abuses, so ignores its non-college-bound youth and is so indifferent to its success or failure, that invests as little in their well-being and their education advancement, their skills advancement, their ability to process information as the United States. There is no developed country on Earth that is as little concerned with the length of time from school to work and making that transition an easy natural positive one and a good experience for a young person. It is as if we refused to learn what the rest of the world is doing. It is as if we want to—as if we were shouting from the mountaintops, we don't give a damn about our non-college-bound kids, we don't give a damn about the health of the American economy, because that's what it is all about. We are measuring our national health and well-being in ways that are totally inaccurate, do not reflect the facts at all.

We look at the well-being of American corporations, that is a very bad indicator of what is going on in our country. You go into an automobile showroom and buy a Chrysler car. It is likely to be manufactured by Mitsubishi, designed by Mitsubishi, manufactured by Mitsubishi in Thailand with Thai workers. And I don't blame Chrysler for that. But our perception and our treatment of our young people means that we haven't learned yet that we are in a global economy. Who is the biggest employer, the single largest employer in Singapore? It's General Electric. May they prosper. May Chrysler prosper. But their activities do not necessarily contribute to the well-being of the American workers. Eighty percent of our work force is ailing and failing the test. The top 18 or 20 percent of executives, people with specialized skills in advertising and marketing, consumer electronics, high technology, they are doing brilliantly. They are appealing to the world market for their talents.

Our American advertising agencies, New York City, are being now taken on—what is the right word—they are being retained by foreigners all over the place. Political consultants in Washington are being retained by foreigners. Does that mean that the American economy is healthy? Not at all. The American economy, the health of the American economy, ought to be judged by what American workers add in terms of value-added to global commerce, and then you will see that when Chrysler manufactures the car that is designed by Mitsubishi, manufactured by Mitsubishi in Thailand, and when General Electric has an enormous percentage of its consumer electronics and other things manufactured in Singapore, you will see that by the test of value-added produced by American workers, they are not doing very much for the American company.

I criticize them not. They understand that we are in a global economy, but our government doesn't understand that we are in a global economy, because if our government was concerned with the 80 percent of American youth in our schools who aren't probably college bound, we would be dealing, if they understood, that the health of the American society depends on the productivity of these young people, what they can contribute in terms of value-added service to the global economy. Then maybe we would look at this success and failure very differently than we do now. Our present disinterest, our present unconcern, our present unwillingness to spend on their education even a fraction of what other developed countries around the world do, should be a cause of national concern. It is a disgrace and I hope that this hearing will shed some more light on the subject, on this subject that the subcommittee has been dealing with for some time.

I would like to yield to my distinguished minority colleague, Congresswoman Snowe.

OPENING STATEMENT OF REPRESENTATIVE SNOWE

Representative SNOWE. Thank you, Mr. Chairman.

I too want to commend you and the panelists on being here today for what is a very important subject when you consider the fact that 65 percent of the jobs that we are creating today will require something more than a high school diploma. By the turn of the

century there will be 75 percent of those jobs. We recognize that we have to do far more in our educational system than we are doing to address not only the current needs but future needs. And especially for those who do not seek out education beyond secondary education.

So, I want to welcome our distinguished guests here today because it is a very critical issue I think to the future of this country. Mr. Chairman, I ask unanimous consent to include in the record a complete written opening statement.

Representative SCHEUER. Without objection, it is so ordered.

[The written opening statement follows:]

WRITTEN OPENING STATEMENT OF REPRESENTATIVE SNOWE

I WOULD LIKE TO WELCOME OUR DISTINGUISHED PANEL OF GUESTS HERE TODAY. EDUCATION IS A NEVER ENDING PROCESS. IT BEGINS WITH BIRTH AND ENDS THEY DAY WE DIE. THIS EDUCATION CAN BE IN THE FORM OF FORMAL SCHOOLING OR IN LEARNING A NEW JOB SKILL. NEITHER ONE OF THESE FORMS OF EDUCATION IS MORE IMPORTANT THAN THE OTHER. EACH REQUIRES A CONSIDERABLE AMOUNT OF EFFORT AND HAS CONTRIBUTED EQUALLY TO THE LARGEST ECONOMIC EXPANSION IN HISTORY.

FOR THE UNITED STATES TO CONTINUE THIS CURRENT PERIOD OF ECONOMIC GROWTH, WE AS A NATION MUST STRENGTHEN OUR COMMITMENT TO PROVIDING THE PROPER ACADEMIC SKILLS NEEDED TO SUCCEED IN THE JOB MARKET. THIS COMMITMENT DOES NOT NECESSARILY MEAN INCREASING THE AMOUNT OF FUNDING ALLOTTED FOR EDUCATION. IT MEANS USING THE AVAILABLE FUNDS MORE EFFICIENTLY. THIS IS THE KEY TO A SUCCESSFUL EDUCATION SYSTEM. I WELCOME YOU AND LOOK FORWARD TO HEARING YOUR TESTIMONY.

Representative SCHEUER. All right. Thank you very much, my colleague from the State of Maine.

We have a panel of four distinguished witnesses, whom we will hear in turn. In the order they will testify, our witnesses are:

Franklin Frazier, Director, Education and Employment Issues, Human Resources Division, U.S. General Accounting Office; Raymond J. Uhalde, Administrator, Office of Strategic Planning and Policy Development, Employment and Training Administration, U.S. Department of Labor; Marc S. Tucker, president, National Center on Education and the Economy; and Gordon M. Ambach, executive director, Council of Chief State School Officers.

Let's hear our first witness report on a GAO study that was done at my request and the request of Representative Gus Hawkins, chairman of the House Education and Labor Committee. Let's hear from Franklin Frazier, Director, Education and Employment Issues, Human Resources Division, the U.S. General Accounting Office. We're delighted to have you here, Mr. Frazier. I say to you and all of the witnesses that your prepared statements will be printed in full at the point in the record at which you testify. When you are all finished testifying, I am sure that we will all have some questions for you. Please proceed for 5 or 6 or 7 minutes.

STATEMENT OF FRANKLIN FRAZIER, DIRECTOR, EDUCATION AND EMPLOYMENT ISSUES, HUMAN RESOURCES DIVISION, U.S. GENERAL ACCOUNTING OFFICE [GAO]

Mr. FRAZIER. Mr. Chairman and Congresswoman Snowe, I am pleased to be here today to share with you the results of the GAO study on employment preparation of noncollege youth in the United States and four other countries, England, the Federal Republic of Germany, Japan, and Sweden.

The United States has a worldwide reputation for providing its youth extensive opportunities to attend college. However, our country falls short in significant respects in the employment preparation of many noncollege youth, most notably in equipping them with literacy skills and providing them an effective transition from school to work.

Employers largely agree that entry-level workers should read at least at the eighth grade level, but some 20 percent of young American adults function below that level. GAO projects that by the time they reach age 25 about 9 million of the Nation's 33 million youth now aged 16 to 24 will not have the skills needed to meet employer requirements for entry-level positions. The 9 million consists of approximately 5 million dropouts and about 4 million high school graduates who lack high school competency.

Now, I would like to address three conditions of American education that keep many of our non-college-bound youth from being adequately prepared for the work force. First, many children are not ready for school entry or fall behind in school and are not adequately helped to catch up. Significant investment is being made in Head Start for comprehensive educational, social, and other services to poor 3- and 5-year-olds, as well as in Chapter One programs for remedial instruction primarily in elementary school grades. But

the magnitude of the problem is such that these programs fall short of reaching the bulk of the children in need. The early lag in basic academic skills hamper progress throughout the school years and in subsequent work life.

A second condition of American education is that schools are not linked to the labor market. About half of U.S. youth go to college after high school. However, many of the other half receive inadequate preparation for employment. Many high school students are not made aware of work requirements or work opportunities. Nor do they see the relevance of schooling to work, and, therefore, are not motivated to do well in school. How the departing student proceeds in the labor market is regarded as the responsibility of the student or his or her family. Few institutional bridges are available to help noncollege youth make the transition from school to work. Left to themselves, large numbers of high school graduates and dropouts flounder in the labor market, jobless or obtaining jobs that do little to improve their skills for future employment.

A third condition is that training after high school is limited for young people who don't go to college. After leaving school, "second chance" programs, such as the Job Training Partnership Act, reach only a modest proportion of youth needing employment and training assistance. Other noncollege training also has shortcomings. For example, proprietary schools with appreciable public funding enroll large numbers of youth, but the training in many schools is not effective. Apprenticeship programs generally are of high quality, but they serve relatively few youth.

Now, I would like to discuss some practices used by foreign countries to prepare their non-college-bound youth for work. The four countries we reviewed—England, West Germany, Japan, and Sweden—have national policies to develop a well-qualified noncollege work force. These policies are based on the conviction that such a work force is vital for national economic growth and international competitive ability. Specific practices vary by country. They are rooted in different traditions and they may be accompanied by problems of their own. Still, the following approaches shared by some or all of the four countries may be relevant for the United States.

First, we observed that in the foreign countries educators expect all children to do well in school, particularly in the early school years. Some schools in the United States often accept that many children will lag behind.

Second, schools and employers working together guide the transition from school to work to a greater degree than in the United States. For example, in West Germany the school-employer link involves an extensive apprenticeship. And in Japan almost all high school students seeking work are placed in jobs through their schools which act as an agent for the public employment service.

Third, competency based national training standards are developed and used to certify skill competency. In the United States, certificates for trainees often certify only that they have completed the program.

Fourth, the foreign governments invest extensively in jobless out-of-school youth offering remedial education, training, or job placement. U.S. employment and training programs are available to rel-

atively few youth. England guarantees every jobless 16- and 17-year-old out-of-school youth up to 2 years of work experience and training. Sweden guarantees education, training, or work for every jobless out-of-school teenager. Sweden's municipal authorities are responsible for following up on every 16- and 17-year-old not in school or not working, and pursuing an individualized plan for his or her education, training, and employment. Once the youth are age 18 they become the responsibility of the public employment service which provides such services as placement in training programs and jobs.

Now, I would like to discuss the implications of these foreign practices for U.S. education. We believe that there is a need for more effective leadership and a national commitment to meet workskill problems. How well the Nation does in educating and training youth who do not go on to college is a vital element in shaping our long-term ability to generate economic growth, compete effectively in the world economy, and improve productivity.

The following warrants consideration by Federal, State, and local governments to improve performance in equipping our youth: First, strengthen the commitment to have all children attain the academic skills necessary to perform effectively in postsecondary education or in the workplace. This includes, for example, expecting all children—and I repeat all children—to do well in school. Improving the status of teachers, expanding early intervention programs, and providing adequate educational resources are important ingredients. Next, develop closer school-employer linkages to upgrade the school-to-work connection. In particular, we should better orient students to work requirements and opportunities, including the importance of educational effort to work success; promote combined education and work—apprenticeship type—programs; and more effectively assist youth to attain suitable entry employment.

Finally, we should improve the quality and utility of school and industry training programs by encouraging the development of training standards and certifying levels of competence.

We recognize that the primary responsibility for education and training rests with State and local governments, but adoption of effective strategies nationwide to improve our productive capability and international competitiveness will require strong leadership and a more active Federal role. The Department of Education together with the Department of Labor should play such a role in stimulating State and local officials and industry and labor representatives to work more effectively to equip our noncollege youth to meet the Nation's need for well-qualified future workers.

Mr. Chairman, that concludes my statement.

Representative SCHEUER. Thank you very much, Mr. Frazier.

[The prepared statement of Mr. Frazier follows:]

PREPARED STATEMENT OF FRANKLIN FRAZIER

SUMMARY OF GAO TESTIMONY BY FRANKLIN FRAZIER ON U.S. AND FOREIGN STRATEGIES FOR PREPARING NONCOLLEGE YOUTH FOR EMPLOYMENT

The United States has a worldwide reputation for providing its young people extensive opportunity to attend college. But it falls short in employment preparation of many noncollege youth. Many children are not ready for school entry or fall behind in school and are not adequately helped to catch up. High school students receive little orientation to job requirements or opportunities, and little assistence in making an effective transition from school to work. After leaving school, government training programs reach only modest proportions of needy youth; private training programs also have shortcomings.

The foreign countries we reviewed--England, West Germany, Japan, and Sweden--have national policies aimed at developing a well-qualified noncollege work force. Specific practices vary by country and often entail problems of their own, but the following approaches shared by some or all of the four countries may hold promise for improving U.S. education and training:

-- Foreign school officials expect all students to do well, particularly in the early years. A notable practice in Japan and Sweden is to allocate comparable resources to all schools.

-- Schools and employers systematically guide youth in their transition from school to work. Almost all Japanese high school students obtain jobs through school recommendations to employers. Most West German noncollege youth enter an apprenticeship program.

-- Germany and England develop competency-based national training standards and certify skill competency.

-- Large proportions of jobless out-of-school youth receive assistance. England guarantees work experience and training to all such 16- and 17-year-olds. In Sweden, the guarantee applies to all teenagers.

Recognizing that there are always limitations on how readily practices can be transferred, and that significant change may require additional resources, the following warrant consideration by the U.S. federal, state and local governments:

-- Strengthen the commitment to have all children attain the academic skills necessary to perform effectively in postsecondary education or the workplace.

-- Develop closer school-employer linkages, particularly to expand apprenticeship-type programs and to help youth obtain suitable entry employment.

-- Encourage development of skill training standards and competency certification

Mr. Chairman and Members of the Subcommittee:

I am pleased to be here today to share with you the results of GAO's study, completed and released last month, on employment preparation of noncollege youth in the United States and four foreign countries--England, Federal Republic of Germany, Japan, and Sweden.[1] Together with the House Education and Labor Committee, you had requested that GAO review the education and training strategies of the United States and several economic competitor nations to identify foreign practices that may hold promise of improving the education and training of noncollege youth in the United States.

For our study, we reviewed literature on the U.S. and foreign training strategies, consulted with experts, and spoke with knowledgeable people in the foreign countries. We focus on U.S. weaknesses and foreign strengths. Doing so is not intended to denigrate U.S. strengths nor to imply that foreign systems are trouble free.

SHORTCOMINGS IN U.S. EDUCATION AND TRAINING OF NONCOLLEGE YOUTH

The United States has a worldwide reputation for providing its youth extensive opportunity to attend college. However, our country falls short in significant respects in employment preparation of many noncollege youth, most notably in equipping them with necessary literacy skills and providing them an effective transition from school to work.

A great deal of attention is being paid to the need for improving U.S. education and training, particularly as a means of maintaining international competitiveness. Your subcommittee's previous hearings have pointed to the concern that young workers' deficiencies in academic and job skills impede our nation's economic growth, productivity, and ability to compete with other advanced high-skill nations. Similar concern marks reports by the Departments of Labor, Education, and Commerce, the Massachusetts Institute of Technology, the Hudson Institute, and the William T. Grant Foundation,[2] to name only a few.

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[1]Training Strategies: Preparing Noncollege Youth for Employment in the U.S. and Foreign Countries (GAO/HRD-90-88, May 1990).

[2]Commission on Workforce Quality and Labor Market Efficiency. Investing in People: A Strategy to Address America's Workforce Crisis. U.S. Department of Labor, 1989; Dertouzos, Michael, Richard Lester, Robert Solow, and the MIT Commission on Industrial Productivity. Made In America: Regaining the Productive Edge. The MIT Press, 1989; Johnston, William, and Arnold Packer. Workforce 2000: Work and Workers for the Twenty-first Century. Hudson Institute, June 1987; U.S. Congress, Joint Economic Committee. "The Education Deficit," A Report

Employers largely agree that entry level workers should read at least at the eighth grade level. But some 20 percent of young American adults function below that level. Employers point out, too, that the increasing technological content of many entry jobs requires 11th or 12th grade reading and computation skills. GAO projects that by the time they reach age 25, about nine million of the nation's 33 million youth now aged 16 to 24 will not have the skills needed to meet employer requirements for entry positions--5.5 million dropouts and 3.8 million high school graduates who lack high school competency.

Many students do poorly

Many children, primarily from low-income families, are not ready for school entry or fall behind in school and are not adequately helped to catch up. Significant investment is being made in Head Start for comprehensive educational, social, and other services to poor 3 to 5 year olds, as well as in Chapter I programs for remedial instruction primarily in the elementary school grades. But the magnitude of the problem is such that these programs fall short of reaching the bulk of children in need. The early lags in basic academic skills hamper progress throughout the school years and in subsequent work life.

Schools not linked to labor market

About half of U.S. youth go on to college after high school. However, many of the other half receive inadequate preparation for employment. Many high school students are not made aware of work requirements or opportunities. Nor do they see the relevance of schooling to work, and, therefore, are not motivated to do well in school. How the departing student proceeds in the labor market is regarded as the responsibility of the student or of his or her family. Few institutional bridges are available to help noncollege youth make the transition from school to work. Left to themselves, large numbers of high school graduates and

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Summarizing the Hearings on "Competitiveness and the Quality of the American Workforce," December 14, 1988; U.S. Department of Labor. Employment and Training Administration. Work-Based Learning: Training America's Workers, 1989; U.S. Department of Labor, U.S. Department of Education, and U.S. Department of Commerce, A Joint Initiative. "Building A Quality Workforce," July 1988; The William T. Grant Foundation. The Forgotten Half: Non-College Youth in America, Interim Report. Commission on Work, Family and Citizenship, January, 1988.

dropouts flounder in the labor market, jobless or obtaining jobs that do little to improve their skills for future employment.

Limited post-secondary training

After leaving school, "second chance" programs, such as the Job Training Partnership Act, reach only modest proportions of youth needing employment and training assistance. We cannot quantify the numbers precisely, but JTPA, the largest second chance program, trains less than 10 percent of needy youth. For those who participate, the programs tend to devote limited attention to literacy skills, and the job skill training they provide is generally quite brief (usually less than 4-1/2 months). Other noncollege training also has shortcomings. Thus, proprietary schools with appreciable public funding enroll large numbers of young people, but the training in many schools is not effective. Apprenticeship programs generally are of high quality, but serve relatively few youth.

EDUCATION AND TRAINING STRATEGIES OF THE FOREIGN COUNTRIES

The four countries we reviewed--England, Federal Republic of Germany, Japan, and Sweden--have national policies to develop a well-qualified noncollege youth work force. These policies are based on the conviction that such a work force is vital for national economic growth and international competitive ability. Specific practices vary by country, are rooted in different traditions, and may be accompanied by problems of their own. Still, the following approaches shared by some or all of the four countries may be relevant for the United States:

(1) We observed that educators expect all students to do well in school, particularly in the early school years. Some U.S. schools often accept that many students will lag behind.

(2) Schools and employers working together guide the transition from school to work to a greater degree than in the United States.

(3) Competency-based national training standards are developed and used to certify skill competency. In the United States, certificates for trainees often certify only program completion.

(4) The foreign governments invest extensively in most jobless out-of-school youth, offering remedial education, training, or job placement. U.S. employment and training programs are available to relatively few youth.

Emphasis on all youth doing well in school. In these foreign countries, school officials generally try to give all young people an even start. Notable practices are to avoid grouping youth by ability in the early grades, devote special attention to students with learning difficulties, pay teachers relatively well, and allocate comparable resources to all schools.

Japanese educators have high expectations for all students. They assume that all youth who try hard enough can achieve, and thus encourage student effort and perseverence. Further, each student is led to value achievement of the entire class, thereby helping assure that classmates do not lag behind. Such attitudes likely contribute to a low variation in Japanese students' generally high test scores. The variation in scores is far less among Japanese than U.S. students.

In Japan, teachers have high status and respect. Most come from the top third of college graduates. Their beginning salaries are higher than those of engineers. In West Germany, secondary teacher salary scales are similar to those of judges and doctors employed by the government. Teaching in the United States does not enjoy the same status and salary treatment.

Practices of the foreign countries emphasize providing equal educational opportunity to all youth regardless of differences in socioeconomic status and academic talent. Japan provides uniform teacher salaries and per capita school funding, so that poorer areas are on par with affluent ones. Sweden provides extra resources to needy schools such as those in remote rural areas or in areas with proportionately more immigrant youth. In the United States, local annual per student funding ranges from about $2,000 to $6,000. And teacher salaries vary widely by state and local area.

Assistance in transition from school to work. The foreign countries try to smooth the transition from school to work for noncollege youth by providing students with occupational information and guidance while in school, combining schooling with work experience and on-the-job training, and offering job placement assistance. Employers play a significant role in this transition into employment.

Following are examples of how foreign countries prepare and guide youth into the work force:

-- In 1983, English schools reformed their curriculum to provide orientation to the world of work and structured work experience to all secondary school students. Also, special teachers work with "careers officers" from the public employment service to provide youth with job information and placement assistance.

-- In West Germany, the school-employer link involves an extensive apprenticeship, which guides almost all non-college-bound youth from school to employment. Youth begin apprenticeships at age 15 or 16 and the training usually lasts three years. The young people typically spend one to two days a week studying vocational and academic subjects in state-run vocational schools and the rest of the week receiving on-the-job training from employers. In addition to imparting specific skills, the apprenticeship system is used to socialize youth into the world of work as well as to keep up with technological change.

-- Japanese noncollege youth get jobs almost exclusively through school-employer linkages. Almost all high school students seeking work are placed in jobs through their schools, which act as agents of the public employment service. Each high school has ties with employers who assign a certain number of jobs to the school for its graduates. More prestigious employers with better job offers recruit from higher ranked schools. Japanese employers usually base hiring decisions on schools' recommendations, which are based on students' grades and "behavior" such as attendance records.

-- Sweden provides work orientation to all youth early in the school years. By age fifteen, students complete six to ten weeks of work orientation. Students choosing a vocational field are typically trained in school but also have practical training with an employer. A 1988 initiative adding a third year to vocational high school programs includes work experience for 60 percent of the year.

Recognized skill standards. Germany in particular, and more recently England, seek to maintain quality occupational training by testing and certification to meet national standards. Trainees who pass competency tests receive nationally recognized credentials, which employers look to as evidence of skill levels of potential hires. England's National Council for Vocational Qualifications has been working with industry to develop national skill standards. Under West Germany's apprenticeship system, committees of government, employer, and union representatives develop apprenticeship curricula, examinations, and certification procedures. The practice of establishing skill standards and certifying what trainees know contrasts with the common U.S. practice of certifying course completion and not necessarily attainment of specific skills.

Establishment of national training standards involves industry and government cooperation. Other implementation practicalities

are that standards may be costly to apply and difficult to keep up to date.

Extensive investment in jobless youth. The foreign countries generally provide extensive assistance to jobless youth. England guarantees every jobless 16 and 17 year old out-of-school youth up to two years of work experience and training, although it is in process of revising how the guarantee is implemented. Sweden guarantees education, training, or work to every jobless out-of-school teenager. Sweden's municipal authorities are responsible for following up every 16 and 17 year old not in school or working, and pursuing an individualized plan for his or her education, training, and employment. Once youth are age 18, they become the responsibility of the public employment service, which provides such services as placement in training programs and jobs.

POLICY CONSIDERATIONS

Shortcomings in preparing noncollege youth for employment in the United States and approaches identified in foreign countries suggest actions that U.S. educators and private and public officials might want to consider to improve education and training. In fact, approaches similar to those in the foreign countries are being tried in some U.S. localities. However, we do not assume that the practices in the other countries, developed out of their own traditions, are entirely appropriate or readily reproducible in our country. Also, directing more attention to youth who seek employment rather than going on to college should not detract from widely available college opportunity in the United States, a practice in which our country generally surpasses its foreign competitors.

We believe there is need for more effective leadership and a national commitment to meet work-skill problems. How well the nation does in educating and training youth who do not go on to college is a vital element in shaping our long-term ability to improve productivity, generate economic growth, and compete effectively in the world economy.

The following warrant consideration by the federal, state, and local governments to improve nationwide performance in equipping our youth:

-- Strengthen the commitment to have all children attain the academic skills necessary to perform effectively in postsecondary education or the workplace. This includes changes in expectations and degree of attention to those youth traditionally doing poorly in school. Improving the image and status of teachers, adopting instruction methods and other innovations to encourage student effort, expanding early intervention programs, and

providing adequate educational resources are important ingredients.

-- Develop closer school-employer linkages to upgrade the school-to-work connection. In particular, we should better orient students to work requirements and opportunities, including the importance of educational effort to work success; promote combined education and work (apprenticeship-type) programs; and more effectively assist youth to obtain suitable entry employment.

-- Improve the quality and utility of school and industry training programs by encouraging development of training standards and certifying levels of competence.

We recognize that the primary responsibility for education and training rests with state and local governments. But adoption of effective strategies nationwide to improve our productive capability and international competitiveness will require strong leadership and a more active federal role. The Department of Education together with the Department of Labor should play such a role in stimulating state and local officials and industry and labor representatives to work more effectively to equip our noncollege youth to meet the nation's need for well-qualified future workers.

Mr. Chairman, this concludes my prepared statement. I and my colleagues would be pleased to respond to any questions.

Representative SCHEUER. Now we will hear from Mr. Uhalde of the Labor Department.

STATEMENT OF RAYMOND J. UHALDE, ADMINISTRATOR, OFFICE OF STRATEGIC PLANNING AND POLICY DEVELOPMENT, EMPLOYMENT AND TRAINING ADMINISTRATION, U.S. DEPARTMENT OF LABOR

Mr. UHALDE. Thank you, Mr. Chairman and Congresswoman Snowe. I am pleased to have the opportunity to testify before you today on youth employment and training issues. This subject is a major priority of Secretary Dole and the Employment and Training Administration. And, Mr. Chairman, we are grateful for your interest and leadership in this area.

The Department of Labor generally agrees with the findings of the GAO report. Insufficient attention is given to preparing youth in the United States for employment and this is particularly true for those who don't complete college. These workbound youth if we may call them that, are primarily left to their own devices in seeking to enter the labor market. Generally, they receive little structured assistance from the education community or employers. This nonsystem results in a significant waste of time, energy, and productive capacity on the part of both young jobseekers and employers.

The GAO report recommends that more school-employer linkages be developed, particularly to expand combined education programs and to assist youth to obtain suitable entry-level employment.

The Department of Labor strongly supports this recommendation and as part of Secretary Dole's work force quality agenda we have lodged an intensive effort to seek ways to do a better job of assisting America's youth in making the critical transition from school to work.

We also have been participating with the National Center for Education and the Economy's Commission on Skills of the American Workforce on the forthcoming report and look forward to its release.

It is now widely recognized that the skills of many young workers and many young people who have or are soon to enter the labor force are no longer adequate for the economy, the economy which we are in now and the economy that we face in the future. The pace of innovation is expected to accelerate. Increasingly, higher job skill requirements combined with a shrinking youth labor pool make it imperative that our youth leave school with strong basic skills and are work ready. Although there are existing programs for assisting youth and making the school-to-work transition, they are really very limited in number and do not constitute a system nor do they constitute a national strategy. Non-college-bound youth primarily work through an informal network of friends and family to find employment.

We find it particularly significant that the GAO report finds that foreign countries invest proportionately more per capita than the United States in noncollege youth education and training.

According to the GAO report, the post-high school investment in those high school graduates who do not go on to college averages

only about $1,300. The absence of a sustained or structured support for non-college-bound youth in the school-to-work transition poses special hardships on our most disadvantaged young people. Many will experience frequent spells of unemployment. Many could fall prey to chronic poverty, crime, or drugs. But it would be a disservice to think that a lack of school-to-work transition is only a minority issue or an urban problem. Its impact is really far wider. The bridge between school and work for non-college-bound youth is frequently unemployment.

In October 1988, the Bureau of Labor Statistics data tell us that 15 percent of the previous June's high school graduates not enrolled in college are unemployed. The unemployment rate for dropouts was 27 percent and for black dropouts the unemployment rate was 43 percent.

As a part of our effort to call national attention to these issues, the Departments of Labor and Education recently sponsored a conference exploring the problems of school-to-work transition. Two hundred leaders from education, business, labor, and government joined with Secretaries Dole and Cavazos to discuss strategies for implementing school-to-work initiatives at the local labor market level and to stimulate increased public interest and awareness of the issue.

We also showcased several foreign and domestic approaches for assisting youth in the school-to-work transition and we will shortly publish proceedings from the conference in the form of a white paper. We would be pleased to share it with the chairman of this subcommittee.

The conference is part of a larger effort to develop a range of alternatives for assisting American youth. Clearly, we must look primarily to the States and local communities to implement solutions that best reflect local circumstances. However, we feel that the Federal Government does have a critical leadership role to play in calling attention to the problem in proposing strategies that State and local communities should consider. Such strategies might include strengthening existing services such as counseling, skills assessment in our schools, and more efficiently utilizing the employment service and the national occupational information coordinating committees and State committees.

We should consider major systemic changes in which education and business would collaborate in preparing young people for employment. These policy options should include continued improvement in our second chance systems like JTPA and the JOBS program for youth who fail in school or who are failed by the school system.

An alternative to traditional classroom instruction that has been effectively used in apprenticeship for a number of years and in vocational technical training is the applied learning method. Applied learning can be an effective tool in increasing the motivation of workbound youth and it must be an integral component, we believe, of any comprehensive approach to assisting students in making school-to-work transitions.

We would hope that an alternative learning approach can be used to significantly upgrade the academic and occupationally related education of young students not preparing to go to college.

Many of these students are currently enrolled in what is known as the general track. Too often a school's general track does not provide high quality occupational training or academic education that a young person needs to enter the world of work. Promising efforts are now underway in a consortium of 13 Southern States under the auspices of the Southern Regional Education Board to better integrate academic and vocational instruction.

The Department of Labor is currently pursuing two initiatives directed primarily to encourage curriculum change and to promote changes in the linkages between education and the employer community.

The first task is being carried out through a recently appointed Secretary's Commission on Achieving Necessary Skills chaired by former Secretary Bill Brock. They will develop national competency guidelines to reflect work readiness. The guidelines are to be developed by the commission and will serve as working definitions of the skill areas and the proficiencies that are required by workers to pursue employment—necessary in reading verbal, math, science, critical thinking skills. Local schools and educators could then use these guidelines to develop relevant curriculums for promotion and graduation. It would serve as a benchmark to tell how we are doing.

One of the Department's next steps in this overall effort will be multiple grants to develop and test a wide variety of innovative approaches in making school-to-work transitions more efficient. We will also test approaches based on the experience of other countries such as the West German apprenticeship model and other systems that are described in the GAO report. We should not, of course, simply attempt to replicate the systems of other countries. Programs must make sense for our institutions and labor markets. We must preserve the flexibility, diversity, and opportunity for a student to pursue a full range of vocational as well as educational opportunities.

The Department has identified three or four major principles to guide our efforts as we look to the range of alternatives. The first is high standards. We believe that school-to-work transition programs should be designed to enable participants to attain high academic achievement levels. Second, we believe that school-to-work transition programs should motivate youth to complete high school. Third, we believe that school-to-work transition programs should directly link the classroom curriculum to the worksite experience in learning. And fourth, that school-to-work transition programs should emphasize the participants' prospects for immediate employment after leaving school and for entry onto a path that provide significant opportunities not only for career development but continued education.

Institutional changes necessary to improve the transition of the non-college-bound youth to employment will take energy, new ideas, and time. Mr. Chairman, the Department of Labor is prepared to make these investments.

Thank you for your time.

Representative SCHEUER. Thank you very much, Mr. Uhalde.

[The prepared statement of Mr. Uhalde follows:]

PREPARED STATEMENT OF RAYMOND J. UHALDE

Mr. Chairman and Members of the Subcommittee:

I am pleased to have the opportunity to testify before you today on youth employment and training issues. This subject is a major priority for Secretary Dole and the Employment and Training Administration. Mr. Chairman, we are grateful for your interest and leadership in this area and are pleased that the Subcommittee on Education and Health wants to know about the Department's efforts in preparing young people for work.

Recent reports have heightened our awareness of the problems our noncollege bound youth experience in making the transition from school to work. The report of the William T. Grant Foundation Commission on Work, Family and Citizenship entitled "The Forgotten Half: Non-College Youth in America", and the General Accounting Office's report on "Training Strategies: Preparing Noncollege Youth for Employment in the U.S. and Foreign Countries," that you commissioned Mr. Chairman, give us valuable data and highlight these very serious problems.

The Department of Labor generally agrees with the findings of the GAO report. Insufficient attention is given to preparing

youth in the United States for employment and this is particularly true for those who don't complete college. These "work-bound youth" are primarily left to their own devices in seeking to enter the labor market; they receive little structured assistance from the education community or employers. This "non-system" results in a significant waste of time, energy and productive capacity on the part of both young job seekers and employers.

The GAO report recommends that more school-employer linkages be developed, particularly to expand combined education and work programs and to assist youth to obtain suitable entry-level employment. The Department of Labor strongly supports this recommendation and as part of Secretary Dole's Work Force Quality Agenda we have launched an intensive effort to seek ways to do a better job of assisting American youth in making the critical transition from school to work.

We also look forward to the report of the National Center for Education and the Economy's Commission on the Skills of the American Work Force, which will be released shortly. We understand that this report will lay out a comprehensive policy framework and strategy for raising the skill levels of young people and others who need assistance to be competitive in the labor market.

School-to-Work Transition: The Problem

It is now widely recognized that the skills of many current

workers and many young people who have or are soon to enter the labor force are no longer adequate for an economy in which technological advances have transformed the nature of work. And the pace of innovation is expected to accelerate during the 1990's.

Recent data released on young adults (age 21-25) in the United States by the National Assessment of Educational Progress indicate that a relatively small proportion are likely to be proficient at moderate or relatively complex tasks which are typical of managerial, professional and technical service jobs in a competitive, information-based economy.

Increasingly higher job skill requirements, combined with a shrinking youth labor pool, make it imperative that our youth leave school with strong basic skills and are work-ready. For no group is this more important than the almost half of our youth who leave secondary school each year headed directly for the work force. For them, new interventions are needed that closely link learning in school with the workplace.

Although there are existing programs for assisting youth in making the school-to-work transition, they are very limited in number. As Marc Tucker, President of the National Center on Education and the Economy noted at a conference sponsored by the Departments of Labor and Education last month, while there are a number of good school-to-work programs, communities really do not have a school-to-work system. Noncollege bound youth primarily work through an informal network of friends and family to find

employment.

We find it particularly significant that the GAO report finds that foreign countries invest proportionately more per capita than does the United States in noncollege youth education and training. Japan and the European countries studied in the GAO report invest extensively in preparing youth for employment and working with jobless out-of-school youth to assure them a job or further education and training. Unfortunately, current employment and training programs in the U.S. reach only a modest proportion of at-risk youth. Further, according to the GAO, the post-high school public investment in educating and training youth who go on to graduate from college averaged about $15,000, while the investment in those high school graduates who do not go on to college averaged only about $1,300.

The absence of sustained or structured support for noncollege bound youth in the school-to-work transition imposes special hardships on our most disadvantaged young people. Without intensive assistance in making the transition to employment, many will experience frequent spells of unemployment and many could fall prey to chronic poverty, crime or drugs. But it would be a disservice to think of lack of school to work transition as only a minority or urban problem; its impact is far wider.

The cost of lost opportunities both for employers and young people is high. The bridge between school and work for non-college bound youth is frequently unemployment. The unemployment

rate for all 16-19 year-olds in this country is about triple the rate for the general population, with substantially higher rates for dropouts and blacks. There has been a tendency to ascribe these high rates to young people's testing the job market during this time in their lives. However high youth unemployment is not characteristic of such major economic competitors as West Germany and Japan. According to Bureau of Labor Statistics data, in the United States in October of 1988, 15 percent of the previous June's high school graduates not enrolled in college were unemployed. The unemployment rate for dropouts was 27 percent, and for black dropouts the unemployment rate was 43 percent.

For a large segment of the youth population, the transition to work is comprised of intermittent and part-time employment alternating with full-time work at jobs requiring few skills. This situation may have been tolerated in the past because jobs in the United States were plentiful and employers had an adequate supply of applicants from which to select. Consequently employers were not too concerned with the informal, time-consuming and unstructured job exploration process experienced by many youth. However, as the labor force grows more slowly during the next decade, employers may be facing a shortage of skilled workers and a long, inefficient transition of American youth from school to work will no longer be acceptable.

Department of Labor Efforts in School-to-Work Transition

As part of an effort to call national attention to these

issues, the Departments of Labor and Education recently sponsored a conference exploring the problem of the school-to-work transition. Two hundred leaders from education, business, labor and government joined with Secretaries Dole and Cavazos to discuss strategies for implementing school-to-work initiatives at the local labor market level and to stimulate increased public interest and awareness of the school-to-work issue. We also showcased several foreign and domestic approaches for assisting youth in the school-to-work transition. We will shortly publish the proceedings from this conference and will be pleased to share with you the ideas and recommendations of this gathering of experts and concerned parties.

This conference is part of a larger effort to develop a range of alternatives for assisting American youth in making the critical transition from school to work. Clearly we must look primarily to States and local communities to implement solutions that best reflect local circumstances. However, we feel that the Federal government has a critical leadership role to play in calling attention to this problem and proposing strategies that States and local communities should consider in addressing this important national issue.

Such a continuum of strategies might include:

(1) strengthening existing services such as counseling and skills assessment in our school systems, and more efficiently utilizing resources that are available to serve high school youth such as the Employment Service

and the National and State Occupational Information Coordinating Committees;

(2) modifying curricula to reflect the current and future workplace and better integrate academic and vocational education; and

(3) considering major systemic changes in which education and business would collaborate in preparing young people for employment.

These policy options should include continued improvement of our "second chance" systems for those youth who fail school or are failed by the school systems, such as the Job Training Partnership Act programs and JOBS (the new education and training program for welfare recipients).

It should also be noted that the upcoming reauthorization of the Carl D. Perkins Vocational Education Act is likely to promote new connections between academic and occupational skills and curricula. With the passage of these provisions, there should be opportunities for JTPA and vocational education to share in developing and utilizing new curricula and technology to teach basic skills in the context of occupationally oriented education.

An alternative to traditional classroom instruction that has been effectively used by vocational/technical education is the applied learning method. By making extensive use of examples and problems drawn from the real world, applied learning can be more effective in teaching some students than traditional classroom instruction.

Applied learning can be an effective tool in increasing the motivation of workbound youth and must be an integral component of any comprehensive approach to assisting students in making the school-to-work transition. Tangible outcomes are powerful motivators for youth. Finding jobs faster, getting better salaries, and having greater opportunities for advancement are a few of these motivators. As work-bound youth see work related education pay off in attractive employment, they are better able to relate education to their own ambitions. If students have a clearer vision of the meaning and value of occupationally-related education, dropout rates can be reduced.

We would hope that alternative learning approaches can be used to significantly upgrade the academic and occupationally-related education of young students not preparing to go on to college. Many of these students are currently enrolled in what is known as a "general track." Too often a school's general track does not provide high quality occupational training or the academic education that a young person needs to enter the work force and be a productive citizen.

Promising efforts are now underway in a consortium of thirteen southern States under the auspices of the Southern Regional Education Board to better integrate academic and vocational instruction. The consortium is regularly assessing those who completed vocational education courses in these schools to track progress over time in raising academic skills. Information from this initiative should be helpful in

restructuring the "general track" and vocational education programs leading to more effective learning at the secondary level.

The Department of Labor's initiatives will be directed primarily towards two areas: (1) encouraging curriculum changes that reflect the demands of the workplace and (2) promoting the changes and linkages that are needed within the education and employer community to increase the connection between school and work, fostering a smoother transition to a meaningful career path.

The first task will be carried out through the recently appointed Secretary's Commission on Achieving Necessary Skills (SCANS) chaired by former Secretary of Labor Bill Brock, that will develop national competency guidelines that reflect work readiness. The guidelines developed by the Commission will serve as working definitions of the skill areas and proficiencies employers require and workers need on the job--what's necessary in reading, verbal, math, science and critical thinking skills. Local schools and educators can then use these guidelines to develop relevant curricula for promotion and graduation.

One of the Department's next steps in this overall effort will be to award multiple grants to develop and test a broad variety of innovative approaches for assisting youth in making the school-to-work transition. The models must include one common element: They are to introduce or expand work-connected learning within the educational experience of the participants.

The relationship between the work-connected learning component and the classroom learning component may vary from model to model. We will also test approaches based on the experience of other countries such as the West German apprenticeship model and other systems which are described in the GAO report.

We should not, of course, simply attempt to replicate the systems from other countries. Our school-to-work programs must remain true to our uniquely American values, and, they must make sense for our institutions, including our labor market. While we will try to take advantage of innovative and effective approaches that exist elsewhere, we must preserve the diversity, flexibility and the opportunity for a student to pursue the full range of educational opportunities that is the hallmark of our education system--enabling them to set clear, achievable goals yet avoiding the rigidities of narrow "tracking."

Looking to the Future of School-to-Work Transition

The Department of Labor has identified the following principles for guiding our efforts as we look at the range of alternatives that may be helpful for American youth in making the critical transition from school to work:

- o High Standards: School-to-work transition programs should be designed to enable participants to attain high academic achievement levels.
- o Staying in School: School-to-work transition programs should motivate youth to complete high school.

- o Linking Work and Learning: School-to-work transition programs should directly link the classroom curriculum to work site experience and learning.
- o Employment and Careers: School-to-work transition programs should enhance the participants' prospects for immediate employment after leaving school, and for entry on a path that provides significant opportunities for continued education and career development.

Institutional changes necessary to improve the transition of non-college bound youth to employment will take energy, new ideas and time. The Department of Labor is prepared to make that investment.

Mr. Chairman, this concludes my prepared statement. At this time I would be pleased to answer any questions.

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Representative SCHEUER. Now, we will get to Mr. Tucker. I want to pay tribute to Marc Tucker for playing an enormously critical role in helping in the design as well as the organization of our first set of hearings several years ago. So, we particularly welcome you again today, Mr. Tucker, with a profound vote of thanks for your past creative service to the work of this subcommittee in exactly this same area. Please take your 5, 6, or 7 minutes right now.

Mr. TUCKER. Thank you.

STATEMENT OF MARC S. TUCKER, PRESIDENT, NATIONAL CENTER ON EDUCATION AND THE ECONOMY

Mr. TUCKER. I appreciate the opportunity that you and Congresswoman Snowe have given me to address what I regard as a terribly important issue, as you do. I must say that one of my many memories of that series of hearings is how uninterested the press was in the entire undertaking. I think you would be happy to know that the report that we are about to come out with, inspired in part by those hearings, is generating an interest in the press which I would never have predicted.

What you began a couple of years ago is beginning to bear a lot of fruit.

Let me describe the commission to which I just referred and you asked me to talk about this afternoon. Among its members are a number of people who appeared in the hearings 2 years ago. It is chaired by Ira Magaziner, an international business strategy consultant, and cochaired by two former Secretaries of Labor, Bill Brock and Ray Marshall. There are nearly 30 members in all. I will not list all of them. There are a wide variety of people who have distinguished themselves in many roles in American life. They include Tom Kean, former Governor of New Jersey; Jim Hunt, former Governor of North Carolina; Kay Whitmore, the chief executive officer of Eastman Kodak; James Houghton, chief executive officer of Corning Glass; John Sculley, chief executive officer of Apple Computer, and a number of other CEO's of leading American firms. The union heads include Owen Bieber of the United Auto Workers; Bill Lucy from AFSME, Ed Carlough of the Sheet Metal Workers. Also, civil rights leaders like Eleanor Holmes Norton, John Jacob of the Urban League, and a number of education leaders, a list too long to mention. This group has been working since last summer in the arena that is being addressed this afternoon by this subcommittee.

They have gone at it a little differently than most, and in particular with respect to our study approach. We put together a team of some 23 executives loaned by a number of firms and government agencies, including the Department of Labor. This research team gathered data in Germany, Sweden, Denmark, Ireland, Singapore, and Japan as well as the United States. The study lasted almost a year and was conducted at a cost of well over $1 million. Many of our findings confirm those that you have have heard from the GAO and others and some go well beyond them.

Let me just quickly summarize if I may where we are at the moment. Your initial comments are exactly accurate with respect to our assessment of the situation. Our special concern is with

those people who don't go to college. Those people, 70 percent of our people—those who do the work of this country——

Representative SCHEUER. Do the work of what?

Mr. TUCKER. Do the work of this country. They are our lineworkers, our frontline workers, our blue-collar workers, our nonexempt workers, call them what you will. They are the people with their sleeves rolled up. They are the people upon whom the economic future of this country largely depends. When you compare their fate with the fate of people in other countries who play the same role in their society, the result is frightening.

The Urban Institute produced a report 2 years ago that showed that the level of poverty among children in the United States is more than twice that of any of the eight European countries which they studied. Our kids start off at an enormous disadvantage. One in five of our kids grows up in poverty. They will become roughly one-third at least of our frontline labor force. Kids who start off with health problems in many cases, psychological problems, deficits of various kinds are at an enormous disadvantage before they arrive at school.

A great deal has been written comparing the educational performance of our system with the educational performance of the countries with which we compete. Let me just pull out one statistic to make the point. The performance of our kids, particularly those who become our blue-collar work force, is well below that of a number of the newly industralized countries with which we compete. Now, what that means is that the educational attainment of much of our blue-collar work force is well below that of people who charge one-tenth or less what we charge for our labor. We are talking about a very large fraction of our population who cannot compete economically because they cannot compete educationally. We are rapidly getting to the position where the kids coming out of our schools in the general curriculum are not going to be qualified to earn the minimum wage. That is already happening to a substantial fraction and the numbers are going up.

The comparison, however, with other education systems does not stop at academic performance. Roughly half of the kids who go to our schools are in what many people refer to as the general curriculum. A recent report on vocational education from the Government commission on that subject told us that only about 25 percent of vocational courses are taken by the kids in the general curriculum. About twice that fraction are taken by the kids who go to college. Now, of the kids who take vocational courses, a smaller fraction still takes courses that prepare them for specific occupations. Of the kids who take courses that prepare them for specific occupations, only 40 percent wind up in occupations that relate at all to the courses that they took.

Now, if you do the back of the envelope arithmetic on that, what you would come up with is that less than one-eighth of the kids who go directly into work from school take vocational courses that prepare them in any way at all for the work that they are going to do.

Now, let me contrast that with the countries with which we compete. We are competing with countries in which the vast majority of students who go into the work force without going to college par-

ticipate in a program lasting anywhere between 2 and 4 years beyond the age of 16, the purpose of which is to give them specific occupational and vocational skills. There is no parallel to that in the United States. Those occupational skills in those countries are built on a standard of academic achievement that has no parallel in the United States. When our kids leave school and go directly into the work force, they mill around in the labor market until their mid-20's. Major employers in this country do not employ kids directly out of high school. They have no way of assessing the quality of those kids. So, they go to the suburban shopping malls and get jobs as clerks in retail stores or comparable employment in a series of dead-end jobs interrupted by periods of unemployment.

Finally, at age 25 or 26, they start to join the regular labor force. Now, compare this 25- or 26-year-old kid whose academic performance is below that of a South Korean and who has had virtually no specific occupational training to the average 19-year-old in Switzerland, Germany, Denmark, Sweden, and Holland who has a far higher level of academic performance and who has built first rate specific occupational preparation on that base. By the age of 19 that individual is a long way ahead of our 25-year-old.

Add to that the fact that nearly a quarter of our kids drop out of school, much larger numbers in areas of high concentrations of poverty—and virtually nothing is done. Virtually every other advanced industrial country makes a determined effort to pick those kids up and bring them back up to their general educational standards. A surprisingly large fraction of our kids end up getting their GED. They do it through their own initiative and effort, not because we have put an institutional system in place to bring them up to reasonable academic standard which the GED is not. I must say that getting the GED is a real testimony to their determination and grit, but it is hardly a testimony to our institutional planning and foresight.

You put that whole picture together and what it amounts to is this: Our kids start off behind the eight ball before they get to school because of the much higher proportion that live in poverty here than elsewhere. They are still further behind when they leave school because their academic attainment is far behind and their vocational preparation is virtually nonexistent.

We do next to nothing to accomplish the school-to-work transition for the vast majority of kids who do not go to college. Most of the experts to whom I have talked say that we have the worst school-to-work transition program of any of the advanced industrial countries. Likewise we do next to nothing for the large number of kids who drop out of school. And, finally, once these kids get into the work force, what they find is that the proportion of the private training dollar that is spent by firms on their own employees is far higher than in other countries for the managerial, professional, and senior technical workers and far lower than in other countries on them, on the frontline worker.

What you are looking at is a system of cummulative deficits starting from birth, compared to our foreign competitors, such that by the time our frontline workers are in their 30's, they are far behind their competitors elsewhere in the world. The fault is not theirs, it is ours.

One other point with respect to the findings——

Representative SCHEUER. That is a wonderful closing line. [Laughter.]

Mr. TUCKER. Then I will stop and save it for later.

[The prepared statement of Mr. Tucker follows:]

PREPARED STATEMENT OF MARC S. TUCKER

Let me begin, Mr. Chairman, by expressing my appreciation for the opportunity to come before you once again on the topic of the quality of the America workforce. The rest of America, I should note, is beginning to catch up with you. When you inaugurated this subcommittee's work with a whole series of hearings on our topic three years ago, it was hard to get an audience. Now, I am finding that leaders in the media and business are increasingly eager to understand this issue and to deal with it. The hearing record on 'Competitiveness and the Quality of the American Work Force' you compiled has become something of a bible on the desks of many people around the country, an invaluable sourcebook of analysis and prescription. As workforce quality moves higher on the public agenda, others will join me in thanking you for your foresight.

You asked me here to brief this Committee on the forthcoming report of the Commission on the Skills of the American Workforce, a project of the National Center on Education and the Economy. The Commission's report will be released in New York City next Monday. While I am not in a position to disclose our recommendations, I would be happy to discuss our findings, which I hope will be of interest to this Committee.

First, however, I should describe the Commission itself. Many of its members are well known to you, having testified to this Committee in the series of hearings to which I just referred. The chair is Ira Magaziner, an international business strategy consultant. The Commission is co-chaired by Bill Brock and Ray Marshall, both former U.S. Secretaries of Labor. Among its members are former governors Jim Hunt of North Carolina and Tom Kean of New Jersey; UAW President Owen Bieber; Corning Chairman James Houghton; Urban League President John Jacob; National Alliance of Business President William Kolberg; former EEOC chair Eleanor Holmes Norton; Apple Computer CEO John Sculley; Eastman Kodak CEO Kay Whitmore; and Circuit City Stores Chairman Alan Wurtzel.

What makes this Commission unusual is the way it went about its business. A research team of 23 loaned executives conducted over 2,000 interviews with over 450 firms and agencies in Germany, Denmark, Sweden, Ireland, Japan, Singapore and the United States to build up what may be the most detailed international data base ever assembled on workforce skills. They collected and analyzed data and reports from a great range of public and private agencies in all the countries they visited. The Commission was able to build up a picture of skills development from this base more complete and far ranging than any assembled before.

Here are some of the highlights of what we found when comparing our system for educating and training our front-line workers to that of some of our foreign competitors.

From birth to the end of their working lives, we invest less in our blue collar work force than any of the major countries with which we compete. We give them less care when they are infants and children. We expect less of them in school. We give them less job training when they start out. We let them sink or swim when they try to get into the work force. And we provide them with less training once they are at work.

If our economy succeeds, the people who are our blue collar employees will have to have many of the attributes of professionals. We can send them all to college, at an enormous cost in time , people and money, or we can design a system that does it right the first time in secondary school and then builds a sound technical and professional training on that base. With the right kind of education and training, such people would command higher wages and have brighter career prospects. Their earnings gap with the college educated would begin to close. They could hold their head high.

That seems to be the path being taken in some of the most advanced industrialized countries we visited. The contrast between their systems and ours is stunning. And the results very different. Blue collar wages are closer to white collar salaries and blue collar workers are held in respect to a degree that has no parallel here. In Japan, where the rate of college-going is as high as our own, beginning engineers make less than many blue collar workers on the factory floor. In Germany, craftsmen holding the masters certificate are viewed as the backbone of the economy, and their training is regarded as a key to Germany's economic success.

In this section, I describe the consequences of our neglect of the needs of our blue collar workers and the policies and institutions our competitors have put in place to provide for a skilled work force. My purpose, as you will see, is not to urge those policies and practices on the United States -- we think we can do better -- but to illuminate the alternatives, to show what is done by countries that take the problem seriously.

Our Skills and Theirs

Three years ago, Bill Wiggenhorn, Motorola's Vice-President for Education and Training, came before this subcommittee and described the staff at one of the firm's suburban Chicago plants in the following way:

"We have about 7,500 people; roughly 3,200 or 3,300 are production workers. Of that group, we have found that 1,000 lack basic math skills -- adding, subtraction, multiplication, division. Five hundred fifty cannot comprehend English; 250 do not read above the first grade level; 2,200 people cannot think -- do problem solving."

"Why is that an issue? Well, as you automate our facilities... you find that robots and automated equipment speak English. Computer terminals, of which we now have 30,000, print in English and you're expected to read it. We used to have managers that did the translation, but in slimming down the organization, those managers have disappeared."

"You can't delegate responsibility if people can't read, if they can't analyze the quality charts so they know when to stop the line."

Now join the Commission's research team as we stand on the factory floor at the Toyota assembly plant in Toyota City, Japan. We listen in astonishment as we are told not only that the line workers are expected routinely to contribute to engineering advances in the design of Toyota cars, but that the skills they bring to that task are often comparable to those of a sophomore or junior in an American college engineering curriculum. It is not at all unusual, we were told, for the foreman of a work team composed in part of people just graduated from high school to tell team members that they are to take home a textbook on digital electronics and come back prepared to discuss its fine points.

All of the foreign countries we studied recognize that economic success is heavily dependent on the skills of their line work force. The contrast between the provisions they make for assuring the quality of that work force and our failure to do so is simply stunning.

At the Starting Line: The Children of Poverty

The single greatest difference between this country and our competitors is the level of poverty we are willing to tolerate among our children. Two years ago, the Urban Institute reported that the rate of poverty among children in the United States, now greater than 20 percent, was more than twice that of any of the eight European countries they studied, and the problem here is growing. By almost all indices, the poor and minority children who inhabit our inner cities and impoverished rural areas live in third world countries. The tale is told in the now familiar statistics for infant mortality, low-birth weight babies (a faithful predictor of severe problems in health and physical and mental development), poor nutrition of babies and their mothers, homelessness, violence and drugs in the home and on the streets, teen age pregnancy and despair.

The Commission's report is about skills, not poverty. But we are talking about children who sleep on the sidewalk at night, whose teeth ache, who live in constant fear of violence, who are born with drug habits, who are constantly hungry, who cannot afford to buy a pair of shoes or who suffer from debilitating disease. The schools can not deal with any of these problems, nor can they hope to bring their students up to world standards while they persist.

No country can hope to produce a world class work force when 20 percent of its children live in poverty. That 20 percent of our children will grow up to become more than 40 percent of our line workforce.

Our competitors do not understand how we can continue this way. In Germany, health insurance is universal, maternity allowances are available, and the government provides families a tax-exempt child benefit of about $1500 for every child under the age of 16. Such provisions are typical among our competitors. Many advanced industrial countries have public policies designed to assure that their children are adequately provided for -- but not the United States.

The Schools: Holding Tank for Those Not Bound For College

No nation anywhere in the world that has produced an entire work force having high technical skills has done so without first creating a strong foundation of general education on which to

build. All countries that have a high level of general skills set clear standards for achievement; and provide strong incentives for students to meet those standards by making further education and access to a decent job contingent on doing so. The United States can do no less if it wants to meet the world standard.

Americans have been deluged in recent years with reports of international comparisons of school achievement showing our students at or near the bottom in almost every category measured, from mathematics and science to literature and civic education. Fully half of Japanese mathematics students do better than the top two percent of American students; the best of our students do only as well as their average students. In a recent six nation study of mathematics and science knowledge of 13 year olds, the South Koreans placed at or near the top in almost all categories and we Americans placed at or near the bottom. With fifty percent of their 17 year olds taking an international algebra exam, the Hungarians outperformed the ten percent of our students who took it. In fact, our students were outperformed by every other country in which the exam was administered. Though only our top one percent took an international physics exam, we were still outperformed by Hungary, Poland, Japan, Sweden, Norway, Hong Kong, England and Singapore, where much higher proportions of students participated.

These figures, sobering as they are, mask a deeper problem. The situation in this country is far worse for those not going to college than for those who do. Not only are our average scores on international achievement exams lower than our competitors,' but the spread of scores between our top performers and our lowest performers tends to be greater. The inference is clear: our bottom falls far below their bottom. Which is why many observers believe that *the United States has the least well educated bottom half of the work force of any major industrial country in the world.*

What explains our appalling performance? Our investigations of the school programs in the countries we visited revealed no startling innovations in teaching methods or curriculum materials. What they did reveal was a fundamental difference in expectations for student performance, especially for those students not planning to go to college.

A story will illustrate the point. A proprietor of a small business in Virginia told us that a friend had called a high school guidance counselor with a request for the name of a high school graduates he could hire for his business. When he discovered the student could not perform the simplest measurements, he called the guidance counselor to complain. The guidance counselor, astonished, replied, "But I thought you asked me for a vocational student."

In every country we visited, a high standard was set for what all students should know and be able to do, whether those students expected to go to college or not. Sometimes that standard was set through uniform curriculum requirements, sometimes by national examinations, sometimes by both. What is communicated to students by their parents and teachers -- indeed by the whole society -- is that they are expected to meet those standards -- and the vast majority do.

There is more. *In most of the countries we visited, access to good jobs and the more attractive opportunities for more advanced education and training for those not going to college is heavily influenced by the academic record the student has compiled -- usually by the age of 16. So students are strongly motivated to study hard.*

There are two key points here: expectations are high for all students, and there are important rewards for good academic performance, including for those who do not expect to go to college.

But neither of these conditions are present in the United States. Our system, if that is what it is, is very different. *We manage to communicate to most non-college bound students that we do not believe them capable of much in the way of academic achievement and we provide them with few rewards for trying.*

The fiction in the United States is that we do not distinguish between those who are college bound and those who are not -- that, unlike other nations, this country does not foreclose options for our students while they are in school. The reality is otherwise. From early elementary school on, we sort those students who measure high on academic ability from those who do not and provide the former with challenging curricula, while the latter get little of academic substance. Eventually, we steer those who we judge to be less capable into the general and vocational tracks in secondary school.

More than any other country in the world, we believe that academic achievement is the result of natural ability rather than hard work in school. It follows that, when we judge someone to have low academic ability, we do not expect much academic achievement. The parents of such children are told that their offspring are "working up to their ability" when their achievement is in fact mediocre. They are given watered down courses with little academic content, and get good grades when they behave themselves in class. Far larger proportions of such children than in any country we visited are labeled "handicapped" and assigned to special classes with other students who are similarly labeled. Not surprisingly, these students achieve much less than students who have virtually the same characteristics, but have not been so labeled. No one, least all these students, believe they can learn anything, and so, of course, they don't.

But the truth is otherwise. A few years ago, the Educational Testing Service, in the process of scoring the Advanced Placement Tests in Calculus, came across a cluster of high scores from a Los Angeles school serving predominantly low income Hispanic students. Suspecting fraud, they sent a team to readminister the exam on the spot. The students produced the same high scores. Their teacher, Jaime Escalante, had expected and demanded much of these students and their parents, and had given a lot of himself in a two year effort to prepare these students for the exam. Everyone but Escalante "knew" that these kids could not learn. There are other such examples that make it plain that these students can achieve at far higher levels than they do now -- in fact, at world class levels

Poor and minority children in the United States could have no more insidious enemy than this deeply ingrained belief that students of low ability cannot learn. Because people of good will share this belief, they are among the first to oppose high standards on the grounds that poor and minority children will suffer most from them. But the reverse is true. Poor and minority children suffer most, not from high standards, but from their absence. Nothing would serve them better, provided that the schools had very strong incentives to see that everyone met them.

Almost everywhere we looked among the countries that demonstrate high academic achievement, graduation from school means that the student has met a high standard of achievement. That is hardly the case in the United States.

Japan administers national and prefectural tests to students who want to go on to upper secondary school and college. The content of these tests is geared not to the minimum levels of proficiency that characterize many of the standardized tests used in the United States, but to the highest levels of knowledge needed to be a productive citizen. Singapore uses the British "O" (ordinary) and "A" (advanced) level exams. Denmark administers a school leaving examination. Its school leaving certificate indicates the subjects taken, the grades given in those subjects and the examination results. At the end of compulsory school, Ireland adminsters the Vocational Groups Exam and, at two levels of difficulty, the Intermediate Exam. All will soon be combined into a single Junior Certificate Exam. Irish employers rely heavily on these exam results, some of them requiring official statements from the National Certification Board, which would be similar to having SAT scores issued directly to employers in this country.

For decades, students in the United States have received a diploma on graduation from high school. The diploma has signified that the student has met all the requirements set by the state and by the local board of education for graduation. But in signifying that much, it has signified very little. At best, these requirements have typically related only to the number of courses completed with a passing grade and, in some cases, to the number of courses taken in certain subjects.

In the last few years, some states have begun to require all students to pass an examination to get a diploma, but the standards for these examinations has typically been "minimum competency," far below the standards set by the nations for which we compete for students of the same age. Many states have also raised the standards required for graduation -- and therefore for the diploma -- by increasing the required number of years of study in certain specified subjects. But, because students are not required to demonstrate actual mastery of these subjects, and courses are typically "watered down" for students thought to be unable to master "difficult" material, these new requirements fail to lead to significant increases in real learning.

The affect of the American system on the motivation of both students and their teachers is devastating. Employers have long since learned that the diploma signifies only that students who have it have demonstrated the discipline required to stick with it long enough to stay to the end of school. So they are more likely to offer an entry level job to someone with a diploma than without, because they prefer dependable employees who have shown they can put up with the routine and discipline required by school -- and by most entry level jobs.

As we have noted, Irish and Japanese employers make extensive use of high school graduates' , school records and examination scores when they make employment decisions. But, *because employers in this country know that it is possible to graduate and still be functionally illiterate, and because they have no document that tells them what a student actually knows and is able to do, graduating students entering the labor market are offered the same jobs and the same pay whether they have studied difficult subjects and have done well in them or not. The result is that students who do not plan to go to college have no incentive to take courses with real academic content or to perform well if they do take such courses.* Nor do their teachers have any incentive to steer students into such courses or to demand top performance from them. Parents are told that their children are taking mathematics or science, but do not know that these courses lack the content that would be required for real mastery of those subjects or that their graduating seniors lack even the basic skills required for success in life, even though they have the diploma in hand. At the very time that employers and colleges complain bitterly that

students lack the skills they need, the system is sending signals to the parents that their children are doing fine. *Thus the whole system conspires to produce minimal effort on the part of students, parents and teachers, with the result that achievement falls far below the inherent capabilities of the students*

Balancing our School Budgets on the Backs of Our Dropouts

The dropout rate in the United States now exceeds 20% and is much higher than that in our big cities, where it not infrequently goes over 50%. When American students drop out, there is no safety net. A surprisingly large number of students -- close to half of the dropouts -- eventually manage on their own initiative to get some form of high school equivalency certificate and a tiny fraction are served by the Job Corps and other Job Partnership Training Act program, but, *for a great many dropouts, there is only an endless round of dead end minimum wage jobs, unemployment, welfare, drugs, violence, crime and incarceration. No one in our society is responsible by law for these young people. Once they drop out of school, no one seems to care.*

We balance our education budgets on the backs of the school dropout. If that statement seems harsh, think of what those budgets would be if those young people were in school, drawing down their per pupil allotments. We spend close to $5,000 for each 17 year old who will stay in high school, even if not learning, but less than $100 on second chance programs for those who drop out.

Now contrast that with the situation in Sweden. The dropout rate in Sweden is close to that in this country. Under Swedish law, the municipalities are responsible for operating Youth Centers that perform the dropout recovery function. Independent of the public education system, they employ counselors who track down every dropout and urge them to visit the Center, check out its program, and enroll them in the Center. Youths who have dropped out have a powerful incentive to respond, because it is almost impossible to get a job in Sweden without an educational credential, as the dropouts quickly learn. Once at the Center, they are offered a choice among a wide variety of what we would call alternative school programs, as well as work experience programs. The educational program is closely tied to the school to work transition program, but both are run very informally. That is, the experience is very unlike the formal structure of the school. What is crucial is the Youth Center has an atmosphere very like family. It provides the same kind of social support and caring attention that most of these youths -- many of them abused and runaway children -- have lacked growing up.

The difference between us and Sweden lies not in the dropout rates -- they are almost the same -- but in the rate of recovery. They recover the majority of theirs, while we turn our backs on ours. But we need not -- and can not -- if our economy and our society are going to work.

American's School to Work Transition Program: The Worst in the Industrialized World

America has the worst school to work transition arrangements in the world. That is a strong indictment, but it was verified by every expert to whom we talked and by the evidence of our own eyes when we visited the countries we researched.

Take Germany, for example. German youth begin learning about occupations in the seventh

grade. When they are 16, over half sign contracts with employers to join the firm as an apprentice. The contracts set out the terms of the apprenticeship, including wages and hours. The most sought after firms base their decisions on the school records of the applicants. Once the contract is signed, the apprentice receives training at the job site, but must also attend school for one to two days a week. The combined curriculum is intended to provide both real academic skills as well as the capacity to apply what one knows to practical problems. The nature of the work site training is tightly defined for each occupation by industry committees working with the Federal Institute for Vocational Training. This is a national body whose board is composed of representatives of employers, the unions and the government.

When the apprenticeship is completed, a process that takes two to three years, depending on the occupation, the candidate takes an examination that is both a paper and pencil test and a demonstration of practical skills. This system produces people who are generally acknowledged to be among the most skilled workers in the world.

The system is locally administered by the municipal Chamber of Commerce, to which all employers belong. No employer is required to provide apprenticeships, but a large number do, and many small employers band together to offer apprenticeships that would be impractical for them to offer alone. The employers provide a stipend to the apprentices and the services of their master craftsmen as trainers and mentors, all at their own expense.

The employers do this both out of a deep sense of moral obligation -- many senior managers came up through this system and feel a need to carry on what they see as an essential German institution -- and because the system is a valuable opportunity to recruit the most promising youngsters, while enabling them to screen them along the way and train them in methods and values unique to their firm.

European students who are not going to college are highly motivated to partipate in the system we have just described. Because the system is so pervasive, covers so many occupations, and reflects the real needs of employers, employers are reluctant to hire applicants who do not have a certificate. Because that is true, students see a direct relationship between what they are expected to study and their job prospects. Moreover, the relationships between the schools and the employers make it very easy for the students to get connected with firms that offer apprenticeships and the mentor relationship with the trainers give virtually everyone a chance to develop the attitudes and values that will make them acceptable to employers, apart from the specific technical skills the system is designed to provide. The result is a smooth transition from school to work.

Many European countries have systems that are variations on this theme. Germany's, as we noted, is rooted in the firm. Sweden's is based in the schools, with outreach to the firms. Denmark adds the option for the student to pick up the courses needed to qualify for college at the end of the training program. These national systems appear to be converging. Those countries that have emphasized occupational skill training, like Gurmany, are moving to include more general education. Those, like Sweden, that have emphasized broad skills aquired in a school setting, are moving to include more firm-based training. All of these countries now agree that a broad academic background, and the application of that knowledge in practical work settings are the vital elements in a successful program. Eventually, the Europeans anticipate that the members of the European Community and others will create a single unified system of certificates that will make them portable thoughout Europe.

Let's compare this system to what happens in the United States. Less than two percent of American young people move into an apprenticeship system like the one we have described, confined largely to the building trades, and, in any event, only open to people in their mid to late twenties. For another small fraction who take a substantial sequence of vocational courses in a specialty, the economic rewards can also be significant. A large majority of our high school students take one or more vocational courses, but 75% of these students plan to go on to further education. Only 25% of those who go directly into the work force take vocational courses. Of the vocational courses that are given, only a portion are occupationaly specific. And only 40% of the students who take occupationaly specific courses actually wind up in jobs that are related to their vocational training.

Employers in this country have little influence over what is taught in the vocational track in schools, with the result that students have no guarantee that what they learn will be of any value when they look for a job. Apart from the tiny apprenticeship program, secondary vocational school provides little opportunity for the student to build a bridge to the work place, to gain, while in school, the values, habits and skills that European youth naturally acquire through their training and mentoring at the hands of the masters of their trades. Most damaging, most youth in this country see little connection between schooling and the work they will do, so they have little incentive to apply themselves in school.

The burden falls heaviest on our poor and minority students. Many middle class youngsters have connections of family and friends that they can draw on to get their first chance in the work place. But poor students in the inner city and impoverished rural areas do not. Certain that they will be rejected out of hand by middle class employers who will not like the way they talk, dress and behave, they give up early, both on school and work, rejecting the entire system.

Few large firms in the United States will employ students who have just graduated high school, prefering to wait until they have established some sort of track record elsewhere. The result, according to census data, is that the typical high school graduate 'mills about' in the labor market, moving from one dead end job to another (as a clerk in a shopping mall, or a counterperson at a fast food establishment, for example), until the age of 23 or 24. Then, in their mid-twenties, with little more in the way of skill than they had at 18, they move into the regular labor market, no match for the German, or Swedish or Swiss youth of 19.

Some vocational educators are moving to put more academic substance in their offerings. Some are creating technology curricula that incorporate demanding mathematics and science studies in an approach that enables students to apply what they are learning to challenging technological problems. Some 1,500 students are enrolled in experimental apprenticeship programs that begin in school, on the European model. Some high schools are pairing up with community colleges to offer combined programs that promise a real future to their vocational graduates. Some business organizations have worked with school districts to initiate high school academies that offer good connections to to technical careers in business. And some elite vocational schools have always done a good job of preparing their students for good careers. But, looking at the system as a whole, these fragments hardly constitute a system to compare with what we saw abroad.

The fact remains that *our secondary schools are almost wholely oriented toward the needs of the college bound. As we pointed out above, even the vocational education system does a better job of*

enrolling those going on to postsecondary education than those who go directly into the work force. The guidance system is set up to help students get into college. Employers find it very hard to get timely student transcripts, but the colleges get them when they need them. There is no curriculum to meet these youngsters' needs, no real employment service for those who go right to work, few guidance services for them, no certification of their accomplishment, no rewards in the work place for hard work in school -- no sign of real respect. Virtually everything in their environment tells them that they are nothing if they do not go to college.

Work Place Training: The Forgotten Blue Collar Worker

American employers now spend about $30 billion for formal training and somewhere between $90 billion and $180 billion for informal training, very respectable sums in comparison with the formal school and college systems. But it is important to understand who receives the benefit of this expenditure. According to a recent Labor Department publication, *"Those with two years of formal education beyond high school have a 20% greater probability of of getting training on the job than those who have only a high school diploma. College graduates have a 50% greater probability of getting training on the job than high school graduates. Workers with education beyond four years of college have 30% greater probability of getting training on the job than college graduates. And, in high-tech industries, postgraduate education increases the probability of receiving training on the job by almost twice as much as a college degree."*

Only a third of America's employees get any formal training at all, and, as we have noted, those on the bottom get the least. Given the way American employers organize work, this pattern makes sense. They look to their managers, professionals and senior technical staff to drive the process of productivity improvement. The blue collar workers play a passive role in this process, doing what they are told to do after the design work is done and management has decided how to organization production. Production and service delivery workers receive little training because the whole system assumes they have little to contribute to product and service improvement. Others are expected to do the thinking.

But our competitors do it differently. The comparison with Japan is instructive. The overall proportion of salaries and wages spent on formal training is much the same there as in the United States, about 1%. But that is very misleading. A considerably higher proportion of that investment goes to blue collar workers. The key, however, is informal training.

The large employers in Japan typically make a very substantial initial investment in their workers in full time formal training and then follow that up with continuous informal training. Toyota plans within two years to provide two full years of full time training to new high school gradautes (blue collar workers) in digital electronics and mechatronics (a combination of mechanics and electronics) before they put them on the line. Then comes the informal training. On the job training does not mean in Japan what it means here. Because the average Japanese line worker comes to the job with a vastly higher level of mastery of reading, mathematics an science than the average American line worker, an entirely different kind of on the job training becomes possible. As I noted at the beginning of this section, the foreman of a work team can initiate a discussion of a new topic -- a new control technology, for example -- and give veryone a text to read, and ask everyone to take it home and master it, in preparation for what amounts to a seminar at the next meeting. Instruction of this sort is seen as a primary function of managers at all levels of the Japanese firm. *After several readings and informal seminars,*

ordinary Japanese workers can be expected to be on top of topics that few college students could absorb, all learned without the benefit of any formal classroom instruction. This kind of learning goes on constantly in the firm, and is the primary means of skill improvement. The result is that a given amount of skill improvement in Japan costs a tiny fraction of what it would cost in the United States.

In Singapore, all employers pay a 1% tax into a Skill Development Fund. They can get their payments back if they can submit successful training proposals to the Economic Development Board or Productivity Board, or send their workers to training programs approved by those government bodies. The main criteria employed by these agencies in making decisions on training proposals is whether the training provided will increase the capacity of the employees for high value added work. Training to enable them to sell, install or maintain a new product, for example, would not qualify. The employers we interviewed not only did not resent this tax, but viewed the training that it supported as a major benefit to the firm.

Germany levies a 5% payroll tax, half paid for by the workers, half by employers, which covers the cost of the unemployment insurance system, the job service and continuing training and retraining outside the firm. Decisions on the uses of these funds by the workers are made by government officials on a case by case basis. In some cases, workers can get up to 70% of their prior wage while in full time training, in addition to full tuition subsidy, books and materials and on site living costs, if the training required can only be delivered beyond a reasonable commuting distance.

The United States has no provisions even remotely approaching those we have just cited. In the words of one expert, "Most states now have 'customized training' programs in which public institutions provide training tailored to the needs of individual employers. Many states are experimenting with programs that encourage employers to do their own training or buy training from public or private suppliers. And federal job training programs allow a small amount of available funds for economic development to be used to minimize dislocation and create jobs for the disadvantaged and dislocated." But, taken as a whole, the scale and reach of these measures hardly compares with what our competitors -- even the newly industrialized country of Singapore -- are doing.

The Labor Market System : Only Fragments

Many countries conceive of the whole set of national strategies for assuring an adequate supply of workers with the requisite skills and matching that supply with demand for skilled labor as one integrated labor market system. Those countries work hard to make sure that their labor market systems function at peak performance. The United States has some of the pieces, but can hardly be said to have anything approaching an integrated, functioning system. The result is severe hardship for millions of individuals and an economy that functions much less effectively than it should.

Sweden is a case -- perhaps the best case -- in point. Sweden spends only an average amount of its gross domestic product on labor market measures relative to the rest of Europe. But, of that amount, it spent only 30 percent of its budget on unemployment compensation, compared to 56 percent in Germany, and 65% in Japan and the United States. It prefers measures that will allow individuals to participate in the productive life of the country to leaving them on the dole.

The rate of unemployment from 1982 through 1988 never exceeded 2.7%.

The National Labor Market Administration (AMS) is the central body responsible for the labor market. The Administration is composed of the National Labor Market Board and 24 county labor market boards. AMS is responsible to the Ministry of Labor. The county boards determine local implementation policies and operate local employment offices and assessment centers. Training services are provided by a semi-independent agency with which it contracts. The local offices maintain close contact with the education and business communities.

AMS' 203 employment and assessment offices are the entryway to the labor market system for a great majority of the Swedish population, providing individualized counseling and up-to-date information about job availability throughout the country. The employment staff to population ratio is 1 to 1,500, compared to a 1 to 8,600 ratio for the comparable service in the United States. Companies are required by law to register job openings with these agencies, though they need not fill their openings through the service. The openings are immediately listed all over the country in a national computer bank.

AMS provides a relocation subsidy to promote labor mobility. It will pay for travel to investigate a job possibility away from home. The centers also provide extensive job counselling services, and rehabilitation programs for the handicapped. For those who are not able to find a job in a short time, the AMS will pay for the training they may need to get the jobs that are available. If that does not work, AMS will find subsidized employment. If that is not possible, public relief work is supplied. Only when all these alternatives have been exhausted will welfare -- what they call the 'dole' -- be made available.

This hardly exhausts the list of services provided by the Labor Market Board, but it is enough to make the point.

There is nothing comparable to the Labor Market Board in the United States. The closest we come are the United States Employment Service and the Unemployment Compensation system, both created by the Social Security Act in the 30's.. Unlike its European counterparts, the Employment Service, operated by the states under terms set by federal law, the Employment Service has no monopoly over job listings for non-professionals. Because it has a reputation for filling primarily only low-wage unskilled jobs, few employers are interested in using its services., so it struggles for respectability. Also unlike its European counterparts, the American Job Service is largely unconnected to the postsecondary training system, so it is unable to perform a function that the Europeans consider vital, connecting job applicants to the training they need to secure rewarding employment.

At the national level, the unemployment compensation system is also unconnected, as a matter of policy, to the training system, so it, too, cannot perform a critical linking function. Some states -- California, Connecticut and Rhode Island, for instance -- have enacted training taxes collected through the unemployment insurance system.

We have no coherent training systems. Instead, we have a substantial number of subsystems supported with public funds. They are not inexpensive, but they are unrelated to one another or to an information and placement system that could make them effective. *Customers face a bewildering confusion of program delivery agencies -- from community colleges to JTPA; from the Employment Service to the Adult Literacy Program. There is no information available to*

these people that would enable them to make good judgements about employer needs, the quality records of service providers, or the costs of available programs. There is no easy way for them to get good information about available jobs or for employers to find out about their qualifications. There is no quality job counselling available to them, either. There is hardly any system at all.

The State of Michigan is moving to integrate some of these services with its 'Opportunity Card' program, based in part on the Swedish example. Other states are beginning to move in the same direction. These are hopeful developments. But the United States has a very long way to go in building an effective labor market system.

Forging an American System

America's task is to produce a system that will provide us with a work force that will be our strongest national asset -- the key to economic competitiveness and to an improved standard of living.

The Commission will propose a set of policies to achieve that objective. These policies draw on the best of what our competitors are doing, but they do not slavishly imitate their programs. *We believe America can and must have a uniquely American strategy, one that not only equals, but improves upon, the strategies of our most advanced competitors.* And one which is adapted to the particular history and values of this country.

The strategies that other countries have used to provide incentives to employers to organize work differently cannot be used here. It is very unlikely that Americans will agree to federal legislation greatly raising pay levels for the blue collar work force across the board and making it very difficult for employers to fire their staffs, as was done in Europe. We will have to go another route, providing employers with incentives to reorganize work and a greatly increased supply of educated and trained labor.

The Japanese system of 'hell week,' during which the exams are given on which college entrance decisions are exclusively based, produces very strong incentives to study hard, but at a price Americans are not prepared to pay. We need a system that also produces strong incentives to study, but which does not take such a heavy toll of the students.

The German system of dual education clearly enables that country to develop one of the most highly trained blue collar work forces in the world, but Americans will not, and should not, accept the German method of deciding the future of their youth at 16 nor should it settle for the rigid system of craft and occupational structures that the Germans use.

The Swedish Labor Market Boards work brilliantly for that country, but we are not likely to accept such a strong role for government and need to invent a system that accomplishes many of the same ends, but by somewhat different means. Their Youth Centers perform a vital function in that country, one that is hardly performed at all here, but we will need a different financing mechanism than they use.

The approach used by the Irish hotel and tourist industry to organize a certification system for their occupations and trades is very attractive because it is effectively self-regulating, but it

will need adaptation to the needs of a country as large and diverse as our own.

Many countries, especially Britain, have examination systems with attractive features, but none of them appears to capture the skills, behaviors, values, and performances that we most want in our students. America has an opportunity to lead the way in producing a whole new approach to student assessment, one that could set a world standard.

The Singaporan Skills Development Fund provides a compelling model for financing the employer contribution to skills development for blue collar workers, but, here again, the very strong role played by government in the Singaporan program would be unwelcome here, so we need to build our own version of their highly successful approach.

Our task is not simply to meet the competition, but to leap ahead, to do what Americans have long enjoyed doing, coming from behind to take the lead. That is what the Commission on the Amreican Workforce will propose nesxt week.

Representative SCHEUER. We are in the middle of a rollcall vote. We will take a recess for as much under 15 minutes as we can manage to get back. It has been a marvelous hearing so far.

[A short recess was taken.]

Representative SCHEUER. Mr. Tucker, you were saying as you finished that the fortune lies not in the stars but in ourselves.

Mr. TUCKER. That is eloquently expressed and I could——

Representative SCHEUER. Do you have further remarks?

Mr. TUCKER. I thought that perhaps I should defer to Gordon Ambach so that you can hear from all of us.

Representative SCHEUER. Very good. Mr. Gordon Ambach is a very distinguished member of the academic league in this country. He served in a number of leadership roles with great distinction and we are delighted to welcome you here today.

Mr. AMBACH. Thank you very kindly, Mr. Chairman.

STATEMENT OF GORDON M. AMBACH, EXECUTIVE DIRECTOR, COUNCIL OF CHIEF STATE SCHOOL OFFICERS

Mr. AMBACH. It was my pleasure to serve as commissioner of education in the State of New York and with you, Mr. Chairman, and to work on many projects cooperatively on behalf of the Empire State. I long have admired your work, and I commend you particularly for the initiative you have taken with respect to the topic here.

I also would commend you for having commissioned, together with Congressman Gus Hawkins, the excellent report that the GAO has provided for us.

Let me just summarize my remarks, Mr. Chairman, and then we can move to your questions and discussion among my colleagues. It has been pointed out two or three times this morning that there is a very, very close relationship between what happens in the entire educational system, prekindergarten and Head Start right up through the completion of high school and beyond, with the task of very specific preparation for employment. Unless we have a strong, comprehensive educational program, we are not going to meet the objectives which have been so well outlined by my colleagues. For that I commend you and the work that has been done to get attention to how important it is to deal systemically with preparation for employment.

I would like to state——

Representative SCHEUER. I am afraid our efforts over a long time have been to very little avail. I say that regretfully.

Mr. AMBACH. My colleague next to me indicated that the attention being given now to the prospective report, and something I'm about to say with respect to the activities of the Chief State School Officers indicates your long labors are coming to an increasing nationwide recognition. What to this point may have been somewhat of a passing national interest in comparing the United States with other countries, is now stimulating consideration of what real policy changes must be made.

Representative SCHEUER. From your lips to God's ears.

Mr. AMBACH. I would put it this way. The end of the 1970's in this nation we were stunned by waking up to the effect that com-

petitors in Japan and Germany were acing us out in many, many respects. It has taken a long time for us to get from there to think about what it takes for our education systems in order to make the changes to bring us to a competitive position. But, I personally believe that is now happening. It is action that is on the minds of the Council of Chief State School Officers. I am very pleased to report to you that our top priority for this next year's work is the transition of youth from school to employment. It is exactly the agenda which you have been outlining. Now, that means we will be working with several States and on a nationwide basis to do several things.

Our proposition is that we must be certain all youth are at least graduating from high school in this country.

Representative SCHEUER. And that means something that they can read and reason.

Mr. AMBACH. Exactly. It means mastery, and it means that high expectations are met. There have recently been statements of goals of a 90-percent graduation rate. Our council in 1987 put a target of virtually 100 percent; we still think that that is right. But it has to mean something. You are correct.

The second proposition is that there are a variety of routes from school to employment. Most students will graduate and, then, move to employment. We know, however, there are many who for one reason or another—income, family obligation, or special circumstances—may need to begin employment before they have graduated. For them it is essential to have legitimate alternative means through which someone can be in employment and still continue to study for graduation and develop employment and occupational skills simultaneously.

We haven't thought about it systematically in that way before. If someone has dropped out, the sense has been they have dropped out of education forever. That cannot be the case. There have to be continuing opportunities.

The third general proposition is there must be new developments between business and the schools by way of making these transitions—apprenticeships and other school-to-work transition programs. You can probably find examples of most anything someplace, but whether they are in operation systemwide, statewide, nationwide is the question.

Three actions that we are taking as a council include: First, to make a concerted effort among several of the States to design new or different transitions from school to employment. This work is to be informed by the kind of studies which the GAO has done and by the work that Marc Tucker and his colleagues are doing calling attention to different varieties of making these connections.

Second, and I point out that to us it is one of the principal issues in dealing with the design of new transitions, is the way we combine funding sources, whether they be Federal, State, or local. Right now Congress is reauthorizing the Vocational Education Act. It is in conference. We have pending amendments to the JTPA. You have enacted within the past couple of years——

Representative SCHEUER. Could you spell that out for the record, JTPA?

Mr. AMBACH. The Job Training Partnership Act.

Representative SCHEUER. Right.

Mr. AMBACH. You have already enacted the Family Support Act, which places the major intention and hope in that program of having welfare recipients return to school or educational institutions in order to learn their way into productive employment.

Now, in all three of those Federal acts there are some extremely important opportunities for changes in direction. JTPA, for example, with a stronger emphasis on youth and a stronger emphasis on school-to-work transitions; and vocation education reauthorization, with a stronger emphasis on how to link academic and vocational training and new tracks between postsecondary and secondary levels, offer great opportunities for change. In both of these, it is our belief that working on a State-by-State basis there are resources to be used in order to design new approaches. It will take concerted effort State-by-State, but that is what we must focus on.

Representative SCHEUER. When you say resources, you mean funding, financial resources?

Mr. AMBACH. Yes.

Representative SCHEUER. Or you mean talent and imagination?

Mr. AMBACH. I really mean both. I mean the talent that is necessary to make it happen and new ideas. We must use ideas developed from demonstrations or experiments for trial apprenticeship arrangements or changes in the way we measure the needs for particular occupations and translate those back into the programs in the schools. There are resources available to do that, if we are smart enough to use funds from JTPA or the voc-ed reauthorization, and indeed, even from the Family Support Act, connected with State and local resources.

The final point I would make has to do with establishing across this country a concept that there must be a universal opportunity for our populations to earn a high school diploma at public expenditure at any age. By and large public expenditure for a high school diploma ends at 21 and in some States at an age lesser than that. There isn't any reason why we cannot move out with our formula provisions and change the concept, so that wherever and whenever the adult finally is able to complete the program and graduate from high school, such study should be undertaken as if it were paid for as we do with youth in regular public education program.

You may recall, Mr. Chairman, that in New York State back in 1984 we changed the State aid formula so that attendance of a person over the age of 21 without a high school diploma, for purpose of study toward that diploma, would be paid for at State expenditure. This concept is very closely related to the overall issue of transition of youth to employment and is related to the first point I made that with respect to different patterns to prepare for employment. Whenever somebody makes that transition from school to work they still should have opportunity to gain high school levels of attainment.

So, our council agenda is an action agenda. We appreciate very much the work that you have done, the reports that you have done and have been done by those who are here at the table. We have no illusions about a quick turnaround. There must be a good deal of trial and error work, but we are convinced the agenda is absolutely the right one, which makes it our top priority.

Thank you very much.

Representative SCHEUER. Thank you very, very much for your testimony.

[The prepared statement of Mr. Ambach follows:]

PREPARED STATEMENT OF GORDON M. AMBACH

Mr. Chairman, members of the Subcommittee, and members of the staff, I commend you for convening this hearing on the subject of youth employment and training, a subject which is essential for both successful economic and educational policy in the United States. We commend you for providing this public opportunity to focus on the issues and for commissioning the study by the United States General Accounting Office discussed here today. I am privileged to join my colleagues in testifying before you on behalf of the Council of Chief State School Officers. Your topic has been established by our Council as the top priority for Council deliberations this next year. We are now planning for our actions and nationwide effort of the states on this topic.

The relationship of education and training of youth and adults to the economic competitiveness of our nation is well documented. The necessity of providing better connections between school and employment for young Americans is also well documented. One of the most powerful reports we have had recently on these points is "The Forgotten Half" prepared under the auspices of the W. T. Grant Foundation. Other studies referred to here today establish the necessity for major actions and shifts of direction. The question before all of us is how to make the changes, including what federal action can stimulate and sustain such change.

Our Council's focus on these issues is based on three underlying propositions.

First, all youth (emphasis on all) must be prepared for productive employment with at least a mastery of and graduation from the secondary school curriculum.

Second, the sequence of high school graduation and entry to employment will be varied. Legitimate, alternate paths to the diploma and the job must be available. Most youth will complete and graduate from high school in advance of their move to employment. Many will take further post-secondary education which then leads to employment. Others, however, will begin employment before graduation from high school, perhaps because of the necessity for income, support of family, or special individual or family circumstance. Those students must not be considered to have dropped out of education forever. They must be provided with continuing opportunity to graduate from high school while working and opportunity to gain more advanced occupational skill. The necessity for new institutional patterns to flexibly provide for the combination of both continued education and initial employment is of foremost importance. Accommodation of financial support from different "systems" and levels of government to do this is a matter of urgent attention to assure continuities and connections for all students rather than gaps.

Third, a variety of new connections between schools and businesses for introduction of employment or for starting employment must be developed. The lessons from our competitive partners are important in this respect. The best place for youth to learn certain aspects of work and to develop the characteristics and capacities expected of responsibly-employed adults is in the work place. The need to increasingly motivate youth to graduate from school in order to enter promising employment must be reinforced by new school/business connections which place higher expectations on students to establish a solid individual performance recorded qualifying them for employment.

These three propositions underlie the Council's commitment to our work in this next year which includes the following:

1. New Patterns for Entry to Employment. A centerpiece of our Council activity over the next year is to develop alternative new and expanded patterns for entry to employment, including apprenticeships. Solid design work is essential. This must include establishing sequences of classroom study, academic and occupational, related to work experience; patterns of time for students both in school and at work; new assessments of work-related capacities and their translation into education credit; funding arrangements which join public and private resources; and establishment of patterns of training which can meet secondary and post-secondary study.

2. Use of the Expected Reauthorized Carl D. Perkins Vocational Education Act, the Amended Job Training Partnership Act, and the Family Support Act. Reauthorization of the federal vocational education act is now in conference. The reauthorization will include major changes, including a reinforced emphasis on service to the economically disadvantaged, a stress on program improvement with need to connect vocational and academic studies, and new connections between school and employment and secondary and post-secondary preparation (Tech Prep).

Anticipated action on JTPA will place special emphasis on service to youth, transition from school to work, and coordination of education and job training services. The implementation of the Family Support Act places heavy emphasis on requirements for education of welfare recipients. We will be putting top priority on the use of those federal acts to assist states in establishing new patterns of preparation for productive employment.

3. Universal Opportunity for Young and Older Adults to Earn a High School Diploma. The broad goal for the United States should be opportunity for free public education until receipt of the high school diploma no matter what a persons age. Some states are now moving to establish such funding provisions and to provide flexibility for young and older adults to use such funding with a variety of providers and in different settings to earn the diploma. Federal efforts should be directed to encourage such long-term

strategies which combine federal, state, and local funds toward establishment of connected funding streams available to all adults when and where they need it. They must help to promote a systematic and "universal" opportunity for adults.

Our commitment calls for concerted action by the states, local educational agencies, post-secondary institutions, business and industry, and the federal government. Major changes must be designed and well tested before full implementation.

Once again we commend you, Mr. Chairman, for focussing the nation's attention on the issue of youth employment and training. We hope to be of continuing assistance to you and to help link the federal and state energies and resources to solve this critical economic and education problem.

Representative SCHEUER. I am going to ask substantially one question and then I am going to yield to Congresswoman Olympia Snowe so that we make sure that she gets a crack at the questions, because we are going to have another vote.

We have been plowing this same field time and time and time again. All of you in one way or another came up with a substantial consensus on what the main problems are and what our thrusts should be. There is no difference of opinion really, there is no diversifying. I can get the top 10 CEO's of this country of whatever political belief, the top 20 or the top 30 and they would agree with you in almost the entirety of the consensus that you have established. So, as between academics and the business community and scholars and government people there is substantial agreement that we are underserving our society because we are underserving our kids who are our future. And compared to the performance of countries around the world, our willingness to fund programs and basically to care about them is a disgrace.

A lot of these programs don't cost a lot of money. I cannot believe that established holdings between schools and the private sector is basically a very expensive program. I cannot believe the reason that it hasn't happened is because we don't have the funding. It seems to me it is something else. It seems to me it is indifference. It seems to me it has to be that school people are going to have to listen more to the corporate sector so that they change their curriculum and begin teaching kids in vocational schools the kinds of things that will be useful when they come to the private sector. It seems to me it must be turf. It must be jealousy. I don't know what.

So, the queston that I want to ask all of you is why have we made so little progress up until now when the facts have been known? We concur every year there are more tests of the performance of kids in the industrial world. And now Marc Tucker is telling us about tests in the newly industrialized countries, so we keep piling on incremental evidence every month, every year, but we don't seem to be able to do anything about it. Does anybody have any inside information as to why we are doing so little, as to why we have an education President, self-described, who is so unwilling to face up to the jobs, to the 70 percent, 80 percent of our people who are underachieving, who we don't provide adequate education for or vocational skills? They aren't literate, they aren't numerate, they are not able to process information. Why are we in this pickle and what do we do to get out of this pickle? What forces?

Let's assume that Congresswoman Olympia Snowe and I are in substantial agreement. What do we do? Who do we talk to? How do we yield whatever levers of power we have to achieve a result, which is an improvement? A willingness on the part of the movers and shakers in our country to do the right thing by the future of our country?

Mr. TUCKER. A surprising thing to us, but what we found is that we did not find an overwhelming skill shortage in the United States. Let me explain that. I would argue that the answer to your question as to why we are doing nothing about this problem is because it is not really perceived as an important problem by American employers. Our research revealed that all but a tiny fraction of

American employers organize work on the model that this country invented at the turn of the century, the mass production mode. The model was a brilliant invention at the turn of the century. It made this country rich. It created the world's largest middle class. It was a way to take advantage of a very large, eager, willing but unskilled work force. It worked by taking a relatively small number of well-educated and skilled people and putting them in charge of a much larger number of people who did not need to be skilled because the managers break their jobs down into relatively small bite sized pieces, any one of which can be trained for in a matter of days. We still organize work in the United States that way.

Increasingly, it is not how work is organized in the other advanced industrial countries. Imagine the old way of organizing work in an automobile assembly plant. You will find a fair number of people there who actually assemble the cars. We will call them the direct workers. There are about three times that number of people, we call them the indirect workers, who perform other tasks in support of the people on the line. They do quality control, equipment maintenance, production scheduling, supervising, and many other tasks. What we found in Sweden, Germany, Japan, and a number of other countries is that they are training the people on the line to do many of those tasks. They are giving frontline workers responsibilities they never had before. By doing that they vastly improve the quality of the product, the flexibility with which the firm can respond to changing tastes, the speed with which it can develop new products, and most of all the productivity of the workers in the firm.

The way this country has approached productivity improvement has been to give the workers the latest and most efficient equipment. Now, the only problem with that strategy is that South Korea can give them the latest and most efficient equipment and they still come in under us because their labor cost is less. We cannot get a productivity improvement that way any more. The way we are going to have to get productivity improvement is the way our competitors are getting it, by organizing work differently.

Now, let me just come back to your comment. There is no substantial skill shortage in the United States because of the way work is organized here. That would explain why this country is not paying attention to the argument that people like those in this room have been making. There is no demand for people with much higher skills. Most American employers would not know what to do with them if they were available. You get much higher demand for skilled labor in the countries that I am talking about, because they have organized work differently. In countries like Sweden, Singapore, and Japan, they have explicit policies that place the goals of full employment and high wages at the top of their priority list. And because those are their goals, it is very clear from the cabdriver to the cabinet minister in those countries that you have to have a high-value-added economy because that is the only way that you get full employment and high wages. And the only way to get a high-value-added economy is to have a highly skilled work force.

It is not a surprise that in those countries you have very high standards for the kids. And the kids are meeting those standards. You have effective apprentice programs and high levels of invest-

ment by business and industry in line workers. It is not a surprise that we don't. The problem that we face is not just with the supply of skilled labor, it is equally a problem of effective demand. We don't have it.

What we have to do is to make the country wake up and understand that until employers in this country adopt high productivity forms of work organization, we are headed toward being competitive in wages with Third World countries.

Representative SCHEUER. Would an example of that be the policy of McDonald's where they have a labor force that cannot read, write, count, or process information? They developed a cash register that doesn't have numbers on it, but it has pictures on it. It has pictures of a hamburger, pictures of a malt, pictures of a pack of french fries. In other words, they are designing the job requirements down to meet a limited ability of very inadequately trained workers. Would you say that for this country that is the wrong way to go?

Mr. TUCKER. If you have the conventional work organization and you are confronted by low-wage competitors, there are a number of ways that you can respond. You can export your own production offshore. You can stop making things and start buying things from foreign suppliers. You can go into some other line of business, which is what U.S. Steel did. You can try to substitute capital for labor to get rid of as much labor as you possibly can, which is what a lot of firms are doing. And you can accommodate yourself as has McDonald's to a very low-skilled labor supply. American business is doing all of those things. The problem is that some of them may survive and even prosper, but the country will not.

It is not always true that what is good for General Motors is good for the country. Certainly it isn't true now. The only way that we can maintain high wages at anything like reasonable employment levels is by changing the way that we organize work.

Representative SCHEUER. I feel we are going to have a rollcall vote. So, I would like to yield to Congresswoman Olympia Snowe so that she has an opportunity for a level playing field.

Representative SNOWE. Thank you, Mr. Chairman. I thank all of you for your testimony. I think you have indicated and underscored how difficult this problem is for the future of our country in many ways. Let me follow up on the question as to what exactly we can do, first, starting with high school. Where do we start in high school to identify, one, those individuals who should be on that track? And it is sort of difficult because, on the one hand, you want to encourage them to continue schooling and their education beyond high school, and, on the other hand, we want to make sure that kids are properly directed to match up their education with the job that they will select after high school. So, what should high schools be doing now to help these young people once they graduate from high school, if they choose not to go on to postsecondary education? How then do you start matching other education with their jobs that they will eventually end up with? Who would like to start? Mr. Ambach.

Mr. AMBACH. Your observation about hesitation to introduce youth too early to a particular track toward employment is very important. There has been a tendency in American education to

try to keep the options open as long as possible. The difficulty with keeping the options open for a long time is there may never be closure on any one of them in such a fashion that the student gets ready to take particular employment.

To answer your question very specifically, there has to be an introduction to different types of employment early on, certainly not later than the beginning of middle years or junior high school. That must be introduction to what it takes for a youngster to become prepared. You cannot leave that until the 12th grade and then begin to be prepared. The student has to be thinking about it and to be ready, not just in terms of what kinds of skills trained for, but what kind of other more general academic capacities in mathematics, in the sciences the student should have. There clearly is an introductory point which is at that stage of early middle school years. The introduction to specific occupational skills follows. It cannot be too precise or too tracked at that point because the student must begin to have some options which then are followed by more specific skill training.

May I connect my comments with what Marc Tucker has just been saying. It is not simply a matter of trying to adjust what happens in the school program. We are talking also about what kinds of demands must be placed on business and industry and what kinds of expectations are set for youngsters to have a clear idea of what they need to do before they do take employment. At this point there is very little done by way of assembling a specific record for an individual youngster of what skills are mastered or what has been completed, which can be used by most employers toward determining whether they should be employed or not. We can do a great deal by way of strengthening that. Its value will be to set the signals for any given youngster as to what is necessary in order to get employment.

There are lots of places where there are substantial revisions of the occupational training program, but they are not enough. This matter of linking both studies in school and direct opportunity for employment, particularly for those who are most likely to drop out before they have graduated from school, is absolutely critical. That will take a concerted effort both by the schools and the businesses to make changes and opportunity possible.

Representative SCHEUER. Would my colleague yield very briefly?

Representative SHOWE. Yes.

Representative SCHEUER. Can you tick off some of the States and cities that have done a good job in revamping their voc ed; cities that have created links between voc ed and the schools in the world?

Mr. AMBACH. Yes. Let me cite two or three places and it won't be an exhaustive list. I am going to focus more on the States but would request the opportunity to look further at some of the specific cities and provide that information for you, Mr. Chairman.

In the State of California there has been, I think, significant development. In the State of Ohio there has been some significant development. I don't mean to be self-serving, but I think that we made some significant changes in the State level in New York's program where we substantially revamped the program which pro-

vided for an introductory phase into certain skill developments and then more into particular occupational training.

I would hasten to say that in most of those changes there has not been a major element of more specific connection between school and employment, that is, introducing the student at an earlier age, let's say 16 or 17 while still in school to more direct experience in employment. I think that is probably the major missing piece.

Now, as I indicated earlier, our work over the course of this next year is going to be very much directed on how one tries to design different ways to make the connections. There are extraordinarily important decisions that have to be made. For example, how does one work out matters of credit for the work or the experience on the work side as opposed to what goes on in school? How does one determine in a more sophisticated way what skills are needed and how they are to be assessed to determine whether the student is ready to take employment? How does one pay for this kind of thing? What is the mix of obligation between public support and employer for a payment of activity or work by the student who is onsite? How do you schedule it? There are a lot of rather mundane things of that sort to be settled, as well.

And as I was saying earlier, how do we connect a new kind of introduction to a job so that it is not seen just as an end point but part of a continuation of both training and, perhaps, more complex work and more specific job-related skills thereafter.

Representative SNOWE. Do you know of any educational systems where they begin this kind of counseling early on in high school?

Mr. AMBACH. Oh, yes, the examples I just have given you would be——

Representative SNOWE. At 16? At age 16?

Mr. AMBACH. Of counseling.

Representative SNOWE. Yes.

Mr. AMBACH. Earlier than that.

Representative SNOWE. Earlier than that?

Mr. AMBACH. Oh, yes.

Representative SCHEUER. Where is this going on?

Mr. AMBACH. The three States I referred to.

Representative SNOWE. California, New York, and where else?

Mr. AMBACH. Ohio is the third example I gave, but I could provide others. I would like to do checking specifically on your request.

Representative SNOWE. I know in the consideration of the Vocational Education bill here in Congress on the Senate side they made some fundamental changes in how the funds would be distributed. That requires 65 to 75 percent of voc-ed aid to go to secondary schools as an attempt to prevent a higher dropout rate and begin to address some of the issues that all of you are raising. Do you think that is the right direction to take? It gives less flexibility to the States. In fact, it bypasses the States in a lot of instances where the funds would go directly to the local education agencies rather than to the States to distribute the funds.

Mr. AMBACH. The House version, of course, leaves to the State the determination of postsecondary versus secondary.

Representative SNOWE. Right.

Mr. AMBACH. The Senate version, as you pointed out, does provide a minimum that must be used in the secondary level and then provides in some additional clauses exceptions to be granted by waiver of the Secretary of Education. A certain number of States can get up to 70 percent of the money at the postsecondary level.

Our position on this has been that the Senate version is acceptable. It is not very far off from actual practice in most of the States now. There are very few States which have a large portion of the voc-ed funds at the postsecondary level. Most of them emphasize the secondary level.

Now, one other point that you made. In both the Senate and the House versions, all of the funds go through a State education agency and then, in turn, into the local educational agencies. What is common to both versions is that at the secondary level there is a formula which is used to distribute the funds rather than a competitive RFP process. We have advocated strongly that if a formula is used under the Vocational Education Act, it is absolutely essential to have a certain amount of discretionary money to be used statewide to get it exactly at the kinds of issues we are talking about here today in order to build the overall policy changes necessary to connect voc-ed money with other sources and use it for strengthening the transition from school to work.

Representative SNOWE. Is there anything else we can be doing in this legislation that would address this problem?

Mr. AMBACH. Specificially in the voc-ed programs?

Representative SNOWE. Yes.

Mr. AMBACH. At this point it is either pick or choose from the Senate or the House version because they are at conference. In my opinion, the changes that have been made in both versions are such that the door is well open for States and localities to use those resources in the ways in which we have been suggesting here. It is not a question of whether they are restricted from doing it; it is a question of whether they would be encouraged and take the initiative to do it. We are organizing our activity precisely to push such initiatives.

Ray Uhalde might want to comment more on JTPA with respect to that amendment process and what are the prospects for your actions in terms of using the JTPA funds. Again along the same lines, and I made reference to the Family Support Act. That is a place where the authorization is already in existence and the funding coming through. It is a question, again in my opinion, not so much of substantially reshaping the authorization, but assuring that those who are using these funds in implementation are putting them at the right place and using them in the right way.

Representative SNOWE. I think that some of these problems have existed for a very long time. When you talk about expectations I think that that was true certainly when I was growing up and going to high school. Guidance counseling wasn't always the best, and expectations were applied to some and not to others. And I think that that is just a problem which has traditionally existed. Unfortunately, we have to look at things differently. And in my district I happened to visit an alternative school, for example, that has been very successful. In fact, the person that was running the

school was one of four finalists, national finalists, for teacher of the year.

Mr. AMBACH. We were privileged to pick them.

Representative SNOWE. All right, you were part of that—I think he represents an excellent example, Bill Nave, of what we need to do. In our educational system we need to look at everything differently than we did before, and it is to challenge the existing educational system and try to do things differently and identifying those students that are at risk. And if they're not working well in a conventional school then you have to develop alternatives for them. And Bill Nave, as you may know, was pursuing things differently in his own classroom in a conventional school system and it didn't work. It wasn't accepted and he developed his own alternative school. I visited that school, and it is absolutely outstanding. Kids who otherwise would not have completed their high school educaton are completing it and, in fact, are going far beyond that because they finally have found people who believe in them.

And so often many of the students in the high schools are lost in the system and no one builds up their confidence or their self-esteem in believing that they can do whatever they want to do. I know that teachers are facing numerous challenges in the classroom today. So, we have to just approach some of these problems a lot differently than we did before because nothing is traditional today compared to where things were a few years ago. And you have to look at the composite of the individual who is now in the classroom, whereas 20 years ago that was not the case. There are so many more problems that they bring to the classroom today than they did before, and we have to address all of those problems and try to figure out how best we can identify those individuals to prevent them from dropping out. The dropout rate is, you know, just totally unacceptable in this country, 3,600 students dropping out every day. We cannot afford that, as you have all indicated in your testimony, in competing with other countries and being part of a global economy.

Mr. AMBACH. I couldn't agree with you more. In my comments, I spoke about providing legitimate alternative routes. What Bill Nave is doing and what others are doing all over the country is exactly along those lines.

Representative SNOWE. If I might ask you, Mr. Uhalde, what is being done in connection with the Department of Education in identifying some of these programs or helping out with various States in trying to assist them in working out some of these problems?

Mr. UHALDE. We work rather extensively with the Department of Education. We just cosponsored the school-to-work conference with the Department of Education to identify good models and to bring the experts together. We are very interested in linking up our job training system with education as a complement to the schools. There are a variety of ways that that can be done.

We are currently funding models in seven alternative high schools. They are based on the model of high school redirection in New York City. JTPA is jointly funding those programs with local school districts. We believe that all young people do not learn in the same manner and that alternative methods, including vocation-

al education are tools for teaching people the basics that they ought to learn. We should not "dumb down" the standards and say that people who cannot learn English, math, and science in the traditional context will be taught a different subject, perhaps we will teach them woodshop instead.

We should teach them vocations that use vocational instruction to imbed the learning of the basics of English and math and science to bring them up to the same standards. So, with the Department of Education we are funding demonstrations of curriculum development and of alternative high schools. We are revising the Job Training Partnership Act to require local education agreements between JTPA and every school system for joint referrals for dropout prevention. In the summer, we are providing training and education in our programs to try to mitigate the learning losses that occur for young people during the summer.

Representative SNOWE. One final question here. Do you think that American students should be required to take a competency exam before they graduate from high school?

Mr. AMBACH. In many, many States they now do.

Representative SNOWE. Well, that's true.

Mr. AMBACH. And having worked myself to put such a system in place, I certainly agree.

Representative SNOWE. Do many States have that requirement?

Mr. AMBACH. About 37 or 38 now have a variety of systems of competency testing. They are not all even, that is to say in their difficulty, and they do not all test in a variety of subjects. The establishment of State testing and assessment systems to determine competency is really a check—it is a quality control, if you will, on what is expected to have happened in the school. You cannot test quality in the student at that point, you can only test whether the mastery level is already there. They are important educational instruments and we have certainly supported having that kind of competency or proficiency assessment.

Representative SNOWE. Yes, Mr. Tucker.

Mr. TUCKER. I am going to take advantage of an opportunity to say that I need to take the fifth on that question but I urge you to tune in next Wednesday when our report comes out. When the chairman called me to invite me to testify today, I told him that I could provide a report on our findings, but not a report on our recommendations.

Representative SCHEUER. Can you give us a little peek?

Representative SNOWE. That is coming out on Monday.

Mr. TUCKER. It's coming out on Monday. I think you will find the last question pertinent on Monday.

Representative SNOWE. Thank you.

Thank you, Mr. Chairman.

Representative SCHEUER. What do you folks think that we in Congress ought to be doing next to move the leadership of the business community, the public servants, to move the Governors? There is demonstrated leadership. When we sat among a number of Fortune 500 executives a number of years ago and we had the first set of hearings we know at least a dozen, 12 or 14 Governors, who have done great things in taking education risk, increasing access. The remarkable thing is that they had been rewarded for

doing that. People like to pay more taxes if they know it is for a purpose and it is not just being poured down the big black hole. They were rewarded for raising taxes for education purposes when it was clear that the moneys would be used cost effectively to improve the quality of the kid's capability. But here we are moving at a glacial rate and the problem is facing ahead of us.

When Marc Tucker talked about kids in developing countries, the newly industrialized countries with skills superior to ours and willing to work at a fraction of what our kids hope to work for, he wasn't kidding. There are 12,000 young people entering the labor force every hour, 12,000 an hour with skills superior to our kids and who are willing to work at a fraction of what they are working for, and willing to work.

The United Nations, the International Labor Organization, tells us that just to maintain the current levels of unemployment and underemployment which affects 50 percent of the work force in the developing world, we have to somehow or other—those countries have to produce approximately 700 million jobs, new jobs by the end of this century. Now, that is greater than the entire employed population of the Western industrialized world. It is a fantasy, it is an illusion. There is no way that that is going to be done. So, what we are facing is the fact that those 12,000 kids who are entering the labor force every hour are going to be competing with people who are already 50 percent unemployed or underemployed. And the problem is only going to get worse.

The population of the globe is increasing at about 93 or 94 million a year. There is no prospect that that will go down even if we achieve a two-child family tomorrow morning in the entire world. It would take approximately 75 years for the globe to reach zero population growth. It is a very complicated demographic situation. I don't have time to explain it, but take my word for it.

The momentum behind the global population explosion is brutal, it's inexorable, it's pitiful. So, the competition that we're going to face from overseas are the very well educated skilled people who deal with new facts and new situations, who know how to process information and are willing to work at a fraction of what our young people work, is a horrifying prospect for us to face in the future as work and production and design and sales are globalized. There is a damn good reason why General Electric is Singapore's largest employer. Why don't they employ all of that stuff in our country? There's a damn good reason why when you buy a Chrysler car like I said before, there's a great likelihood that it will be produced by Mitsubishi and manufactured in Thailand. And those trends are only going to get more powerful and globalization becomes simply more obvious. We'll get used to it. And that is going to have a devastating effect on job prospects and prospects for a decent civilized life with the 70 percent of our population that is not competitive; 20 to 25 percent is competitive.

Our work force is in a pitiful prospect. What do we do to move our country faster to an understanding of this and to an understanding that our living standards are eroding even as we hold this hearing? We are losing ground by a percentage point or two every year. Inexorably, our country is sliding downhill in terms of the quality of life that we can hold forth to the vast majority of our

non-college-bound workers. How do we move things fast? What do we do? How do we hit the central nervous system of the opinion leaders in this country, the executive branch from the White House on down in the business community? The leadership in our towns and cities across the land, how do we produce a demand for education?

Mr. FRAZIER. Mr. Chairman, I would just say that I don't think that there is a magic bullet. I think that traditions are hard to change. As to what the Congress can do to move us off the dime, I think you're doing it. You're going to have to continue to have these kinds of hearings. I think that we are going to have to have more of the kinds of studies such as the Tucker study that is about to be published as well as the kinds of work that we do. And I think the bully pulpit of the President has to be used as well as whatever force we can get coming from the Congress to break down the barriers in the way of changing our system so that we can have a little bit more cooperation between labor, management, and government to bring about the changes that you are seeking.

So, I think that the key is the Congress, the President, and the executive branch—particularly our Labor people and Education people—have to keep working as hard as they can because it is not going to be an easy turnaround for the education establishment of this country.

Representative SCHEUER. Mr. Ambach, I know that you are under pressure to leave around 3:30. Do you have any last words of counsel before you leave?

Mr. AMBACH. A comment on your last question, Mr. Chairman. The task that you have outlined is a major public education task if you will. I don't mean education in school, but how does the public become alerted? There are many publics, so it may be a task of identifying lots of different targets with the message. The difficulty is that it is not a happy message. It is a very somber, very sobering message, and there are an awful lot of folks who are in leadership in this country, and I am not just talking about those who are political, but those who are in other positions, who don't particularly want to be the bearer of those pieces of news. The task of having independent studies such as Marc Tucker has been doing is something that must be expanded. We have to find every forum we possibly can to get across the essential economic message. That is the first message to be put across.

The education message follows it. To get an understanding across this country and a commitment across this country to do something in schools, where only 25 percent of the total adult population actually have a youngster who is in school—75 percent don't—is always a problem. It is absolutely critical to hit where you are expecting, or could expect, to get the greatest take on the message—that is on pocketbook issues. What is likely to happen over the next several years with respect to standard of living? What can each person do to change the slope of that curve? That brings you back into the education message.

Representative SCHEUER. Does anybody have any further comments on any of the questions?

Mr. AMBACH. Just to thank you once again, Mr. Chairman, and you, Congresswoman Snowe, for having us here for this extremely important exchange.

Mr. FRAZIER. Thank you.

Representative SCHEUER. I think the subject with which we are dealing, I think you four have made a fine contribution to our understanding of it. And that is central to our standard of living, the standard of living of young people, of what young couples expect, the standard of living that parents can hold out that their young kids who hope to enjoy quality of life for all Americans. I know of no question that is more central to the well-being and health of our society, the fabric of our society, than the answer to this question.

And I must say that among other subjects—among other aspects of this problem, we haven't focused on is the awesome problem of moving further and further down the road to a two-tiered society and the noneconomic problems faced by a society that develops a structured, an increasingly structured, route of young people who don't have the skills, don't have the education and training. Job skills make it in our society to produce that value added to global commerce that is going to sustain our lifestyles, sustain their standard of living, kids who know what the other 30 or 40 or 50 percent is enjoying because they see it on television every night. Kids are going to resent it who are going to be alienated, who are going to be disaffected and who ultimately—many of them will lash out in anger one way or another.

It is a problem that just fills me with fear and trepidation. I think that we have to worry about the strength of our society as a social entity, and that kind of bitterness, that kind of alienation, that kind of resentment, that kind of jealousy, that kind of anger, I think bodes very ill for us unless we can seize it and handle it and face up to our problem and have a national determination to produce programs and facilities and services and practices and behaviors that will make the non-college-bound youth productive, employable, self-sustaining, independent, and full of pride, self-respect, and self-esteem. If we can't do that, our nation is on the brink of a phenomenon that is so ugly and so offensive I don't even want to contemplate it.

This has been a wonderful hearing and I appreciate the contribution of my marvelous colleague from the State of Maine. And I thank you all and we will be looking forward to reading the Monday morning press release with great pleasure. We stand in adjournment.

I would like to say one more word. I would like to express my gratitude and admiration to the splendid people of the GAO who turned out this marvelous report. We are all in their debt.

Mr. FRAZIER. Thank you.

[Whereupon, at 3:41 p.m., the subcommittee adjourned, subject to the call of the Chair.]

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